Form 3160-3
(August 2007)

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SL071893

6. If Indian, Allotee or Tribe Name
NA

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
Westwater 265

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Westwater Federal #32-13

2. Name of Operator National Fuel Corporation

9. API Well No.
43019-31621

3a. Address 8400 East Prentice Ave., Suite#1100
Greenwood Village, Co 80111

3b. Phone No. *(include area code)*
(303)220-7772

10. Field and Pool, or Exploratory
Westwater

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* 39.331241
At surface SW NE Section 13, Twn 17S, Rng 23E, 1502'FNL, 2310' FEL -109.320922
At proposed prod. zone Same 644722X 4354671Y

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 13, T17S, R23E

14. Distance in miles and direction from nearest town or post office*
53.9 miles to Mack, Co.

12. County or Parish
Grand

13. State
Ut

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1502'

16. No. of acres in lease
2211.56

17. Spacing Unit dedicated to this well
Unspaced

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 370', Westwater #C-10, P & A

19. Proposed Depth
2800'

20. BLM/BIA Bond No. on file
#402157

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6825' GL

22. Approximate date work will start*
07/01/2009

23. Estimated duration
15 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature Andrew Busch	Name *(Printed/Typed)* Andrew Busch	Date 01/29/2009
Title VP of Operations		
Approved by *(Signature)*	Name *(Printed/Typed)* BRADLEY G. HILL ENVIRONMENTAL MANAGER	Date 09-23-09
Title	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

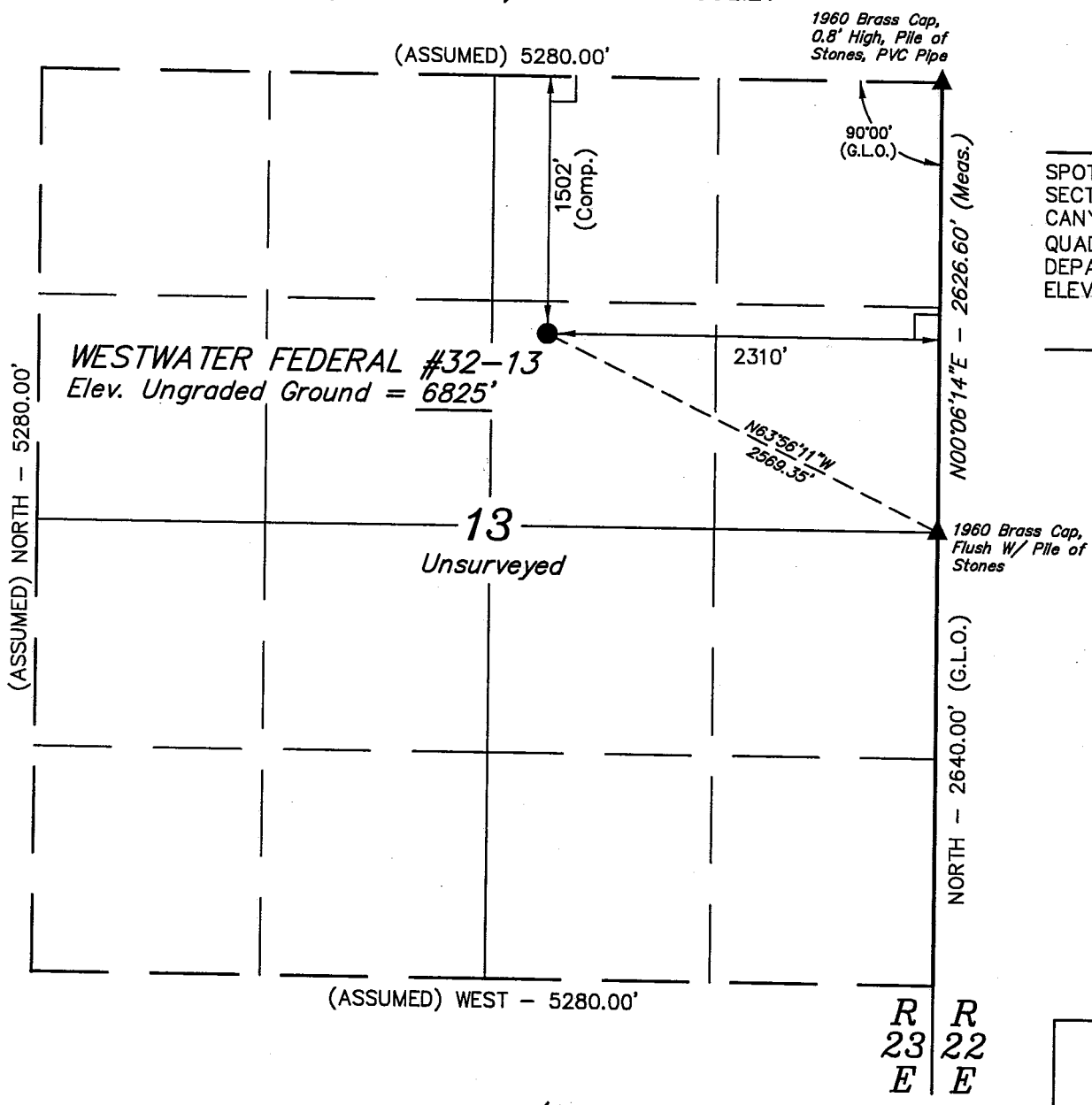
(Continued on page 2)

*(Instructions on page 2)

Federal Approval of this Action is Necessary

RECEIVED
MAR 23 2009
DIV. OF OIL, GAS & MINING

T17S, R23E, S.L.B.&M.



NATIONAL FUEL COPRORATION

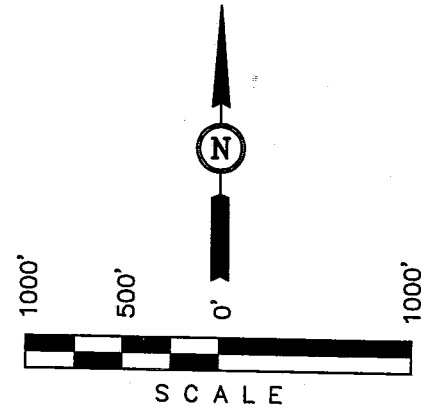
Well location, WESTWATER FEDERAL #32-13, located as shown in the SW 1/4 NE 1/4 of Section 13, T17S, R23E, S.L.B.&M., Grand County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE NORTHWEST CORNER OF SECTION 18, T17S, R24E, S.L.B.&M. TAKEN FROM THE DRY CANYON, QUADRANGLE, UTAH, GRAND COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5722 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

No. 161319

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83)
LATITUDE = 39°19'52.50" (39.331250)
LONGITUDE = 109°19'17.63" (109.321564)
(AUTONOMOUS NAD 27)
LATITUDE = 39°19'52.59" (39.331275)
LONGITUDE = 109°19'15.20" (109.320889)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE: 1" = 1000'	DATE SURVEYED: 08-25-08	DATE DRAWN: 08-29-08
PARTY: D.K. C.H. K.G.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: NATIONAL FUEL CORPORATION	

National Fuel Corporation

(303) 220-7772 PHONE
(303) 220-7773 FAX

8400 EAST PRENTICE AVENUE, SUITE 1100
GREENWOOD VILLAGE, COLORADO 80111-2926

April 1, 2009

VIA E-MAIL

Ms. Diana Mason
Utah Division of Oil Gas & Mining
P.O. Box 145801
Salt Lake City 84114-5801

Re: ***REQUEST FOR EXCEPTION TO RULE R649-3-3 (Non-directional well)***
National Fuel Corporation APD – Westwater Fed. #32-13
SWNE Sec. 13; T17S-R23E; 1,502'FNL; 2,310'FEL
Lease SL071893
Grand County, Utah

Dear Ms. Mason:

This letter is sent to request an exception to Rule R649-3-3 for the above-referenced proposed well due to topography and the location of the well. There are no other lease owners within a 460-foot radius of the proposed location.

We believe the proposed location complies with other well location requirements and we respectfully request that our proposed exception to R649-3-3 be granted. Please feel free to call Mr. Andy Busch at (970) 260-8128, or me, if you have any concerns.

Sincerely,

Diane Thompson

Diane Thompson
President
NATIONAL FUEL CORPORATION

Mickey

(Submit in triplicate)

DESIGNATION OF AGENT

The undersigned is, on the records of the Bureau of Land Management, unit operator and under the Westwater Unit Agreement, Grand County, Utah, No. 14.08.001.4737, approved and effective 11 April 1958 and hereby designates:

Name: NATIONAL FUEL CORPORATION
Address: 8400 E. PRENTICE AVE. - STE. 1100
GREENWOOD VILLAGE, CO 80111

as its agent, with the full authority to act on its behalf in complying with the terms of the unit agreement and regulations applicable thereto and on whom the authorized officer or his representative may serve written or oral instructions in securing compliance with the oil and gas operating regulations with respect to drilling, testing and completing unit well number Fed. # 32-13 in the SW 1/4 NE 1/4, Sec. 13, T. 17 S., R. 23 E., Grand County, Utah. Bond coverage will be provided under (Statewide, Nationwide, Lessee) Bond No. 402157. (BLM Bond # UTB000186)

It is understood that this designation of agent does not relieve the unit operator of responsibility for compliance with the terms of the unit agreement and the oil and gas operating regulations. It is also understood that this designation of agent does not constitute an assignment of any interest under the unit agreement or any lease committed thereto.

In case of default on the part of the designated agent, the unit operator will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his duly authorized representative.

The unit operator agrees promptly to notify the authorized officer of any change in the designated agent.

This designation of agent is deemed to be temporary and is in no manner a permanent arrangement, and a designated agent may not designate another party as agent.

This designation is given only to enable the agent herein designated to drill the above specified well. It is understood that this designation of agent is limited to the field operations performed while drilling and completing the specified well and does not include administrative actions requiring specific authorization of the unit operator. This designation in no way will serve as authorization for the agent to conduct field operations for the specified well after it has been completed for production. Unless sooner terminated, this designation shall terminate when there is filed in the appropriate office of the Bureau of Land Management all reports and a Well Completion Report and Log (Form 3160-4) as required by the approved Application for Permit to Drill for the specified well.

In the event the above specified well is completed as a non-paying unit well, the authority for the designated agent to operate this well shall be established by completion of the Delegation of Authority to Operate Non-paying Unit Well form and submittal of the form to the appropriate office of the authorized officer.

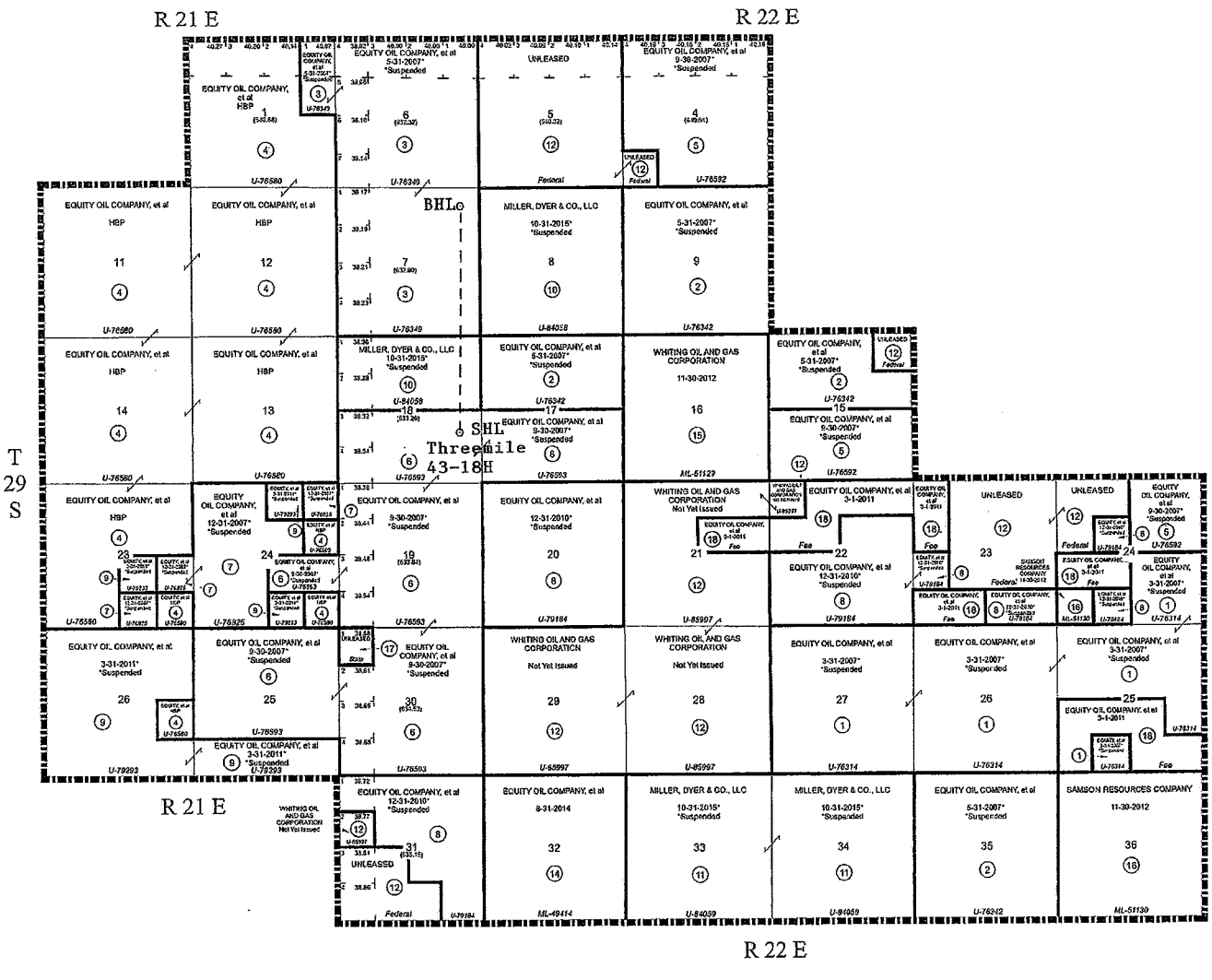
3-5-09 Date — By: [signature] Unit Operator

3/5/09 Date — By: [signature] Authorized Officer (for company drilling well)

APPROVED - EFFECTIVE MAR 20 2009

[signature]

ACTING CHIEF, BRANCH OF FLUID MINERALS
BUREAU OF LAND MANAGEMENT



		ACREAGE	PERCENTAGE
	FEDERAL LANDS	20,884.90	88.33%
	STATE LANDS	1,998.58	8.45%
	PATENTED LANDS	760.00	3.22%
	TOTALS	23,643.48	100.00%

UNIT OUTLINE (3) TRACT NUMBER

1 1/2 0 1

Scale in Miles

THREEMILE UNIT AREA

SAN JUAN COUNTY, UTAH

Bureau of Land Management
Moab District
Application for Permit to Drill Attachment

Company National Fuel Corporation Well No. Westwater Federal #32-13

Location: Sec. 13, T. 17S, R. 23E, Lease No. SL-071893

On-Site Inspection Date: To be scheduled

All operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR § 3100), Onshore Oil and Gas Orders, the approved plan of operations and the conditions of approval. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

A. DRILLING PROGRAM

1. Estimated Formation Tops: Mesa Verde - Surface to 1820'
   Castlegate - 1820'
   Mancos "B" - 2510'
   Westwater #3 Zone - 2596'
   Base Westwater #3 Zone - 2646'

2. Estimated Depth at Which Oil, Gas, Water or Other Mineral Bearing Zones are Expected to be Encountered

   Depth/Formation

   Expected Oil Zones: None
   Expected Gas Zones: Castlegate – 1820', Mancos "B" – 2510', Westwater #3 Zone – 2596'
   Expected Water Zones: None
   Expected Mineral Zones: None

   All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and will be cased and cemented. When possible, water flow rates will be measured and samples will be taken and analyzed with the results being submitted to BLM. All oil and gas shows will be tested to determine commercial potential.

3. Pressure Control Equipment – See attached schematic.
   BOP systems will be consistent with API RP 53 and Onshore Oil and Gas Order No. 2. Pressure tests of the surface casing and all BOP equipment potentially subject to pressure will be conducted before drilling the surface casing shoe. Blowout preventer controls will be installed prior to drilling the surface casing shoe and will remain in use until the well is completed or abandoned. Ram preventers shall be inspected and operated each trip (no more than once a day is necessary), and annular preventers shall be inspected and operated weekly to ensure good mechanical working order. These inspections shall be recorded in the drilling log and in the daily drilling report.

4. Casing Program and Auxiliary Equipment – include casing size, weight, grade, thread and coupling, setting depth and condition (new or acceptably reconditioned):
Hole Size - 12 ¼", Surface Casing– NEW -8 5/8" 24# J-55 STC set at 300'
Hole Size – 7 7/8", Production Casing– NEW -4 ½" 11.6# J-55 STC set at 2800'

5. Cement – include the cement type, density, yield, additives and amount used in setting each casing string. Also include the anticipated cement fill-up. If stage cementing, describe techniques: See attached Halliburton recommendation.
Surface casing shall be cemented back to surface. Centralizers shall be run, at a minimum, on the bottom three joints of each casing string.

6. Mud Program and Circulating Medium – Anticipate drilling surface and production hole with air or air/mist. Air package will consist of the following: 1 - 1250 CFM Ingersol Rand, 1 – 1170 CFM Ingersol Rand, 1 – Cat C-16 2000# Booster. Sufficient mud materials will be stored on location to maintain well control and combat lost circulation problems that might reasonably be expected. A 250 bbl KCL based mud will be mixed and kept on standby for kill fluid. A minimum of 400 bbls of additional fluid will be stored on location for mixing purposes.

7. Coring, Logging and Testing Program: No DST or core anticipated. At TD the hole will displaced with 3% KCL mud system for logging. Logging program: GR-CNL-FDC & SP-GR-DIL open hole logs will be run from TD to 300'. All good gas and/or oil shows will be tested when perforated through production csg.

   Initial opening of drill stem test tools will be restricted to daylight hours.

8. Abnormal Conditions, Bottom Hole Pressures and Potential Hazards – include anticipated bottom hole pressure and/or pressure gradient. Also list anticipated lost circulation zones, abnormal temperature zones and possible hydrogen sulfide bearing zones:
Anticipated bottom hole pressure not to exceed 1000#. 350# max surface pressure witnessed after completing the Mancos in the neighboring Westwater #3. No abnormal conditions, pressures, temperatures or hazards are anticipated and are not common in this area. No H2S anticipated and does not exist in other wells in the area.

9. Any Other Aspects of this Proposal that should be Addressed:
Anticipated time frames for: Construction and Drilling - 15 to 20 days
Completion and Testing - 5 to 7 days

B. TWELVE POINT SURFACE USE PLAN

The dirt contractor will be provided with an approved copy of the surface use plan of operations before initiating construction.

1. Existing Roads:

   a. Proposed route to location (submit a map depicting access and well location).
   See attached maps and plats from ULES.

b. Location of proposed well in relation to town or other reference point:
By way of road, proposed location is 53.9 miles NW of Mack Colo.

c. Contact the County Road Department for use of county roads.

d. Plans for improvement and/or maintenance of existing roads: The existing road preceding the start of proposed access road will need some minor improvements consisting of widening corners and smoothing road surface.

e. Other:

2. Planned Access Roads:

a. Location (centerline): See on map attached to survey plat.

b. Length of new access top be constructed: NA

c. Length of existing roads to be upgraded: 0.1 miles

d. Maximum total disturbed width: 50'

e. Maximum travel surface width: 18'

f. Maximum grades: 10% or less

g. Turnouts: As needed

h. Surface materials: No off-site materials anticipated.

i. Drainage (crowning, ditching, culverts, etc.): Culverts will be installed as needed in drainage's. Road will be crowned and ditches cut to allow for adequate drainage.

j. Cattleguards: None

k. Other:

Surface disturbance and vehicular travel will be limited to the approved location and access road. Any additional area needed must be approved by the Area Manager in advance.

If a right-of-way is necessary, no surface disturbing activities shall take place on the subject right-of-way until the associated APD is approved. The holder will adhere to conditions of approval in the Surface Use Program of the approved APD, relevant to any right-of-way facilities.

If a right-of-way is secured, boundary adjustments in the lease or unit shall automatically amend this right-of-way to include that portion of the facility no longer contained within the lease or unit. In the event of an automatic amendment to this right-of-way grant, the prior on-lease/unit conditions of approval of this facility will not be affected even though they would now apply to facilities outside of the lease/unit as a result of a boundary adjustment. Rental fees, if appropriate, shall be recalculated based on the conditions of this grant and the regulations if effect at the time of an automatic amendment.

If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to a contraction in the unit or other lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental, or other financial obligations determined by the authorized officer.
If the well is productive, the access road will be rehabilitated or brought to Resource (Class III) Road Standards within 60 days of dismantling the rig. If upgraded, the access road must be maintained at these standards until the well is properly abandoned. If this time frame cannot be met, the Area Manager will be notified so that temporary drainage control can be installed along the access road.

Location of Existing Wells – on a map, show the location of all water, injection, disposal, producing and drilling wells within a one mile radius of the proposed well.
See map included with survey plat.

3. Location of Production Facilities:

   a. On-site facilities: Wellhead, meter facilities, separator, production tank and emergency water disposal pit. Details of needed facilities will be submitted if well is completed for production.

   b. Off-site facilities: None Anticipated

   c. Pipelines: If gas production is established, a new 2" steel, epoxy coated, buried gathering line will be laid to existing Energy Transfer line that currently crosses proposed location. See attached survey plat.

All permanent (in place for six months or longer) structures constructed or installed (including oil well pump jacks) will be painted a flat, non-reflective color to match the standard environmental colors, as determined by the BLM. All facilities will be painted within six months on installation.

All site security guidelines identified in 43 CFR § 3162.7-5 and Onshore Oil and Gas Order No. 3 shall be followed.

If a gas meter run is constructed, it will be located on lease within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream of the meter. Meter runs will be housed and/or fenced. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR § 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.

If a tank battery is constructed on this lease, it will be surrounded by a berm of sufficient capacity to contain 1 ½ times the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. All oil production and measurement shall conform to the provisions of 43 CFR § 3162.7-3 and Onshore Oil and Gas Order No. 4.

Production facilities on location may include a lined or unlined produced water pit.

4. Location and Type of Water Supply:

All water needed for drilling purposes will be obtained from (describe location and/or show on a map): Water will be obtained from a privately owned water well located at the confluence of East and Middle Canyons. See attached Water Source map .

Water obtained on private land, or land administered by another agency, will require approval from the owner or agency for use of the land.

5. Methods of Handling Waste Disposal:
Describe the methods and locations proposed for safe containment and disposal of waste material, e.g. cuttings, produced water, garbage, sewage, chemicals, etc. Trash will be contained in a trash cage and hauled away to an approved disposal site as necessary, but no later than at the completion of drilling operations. Sewage will be contained in approved containers and disposed of at an approved disposal site. Produced water and chemicals will be properly contained and hauled to an approved disposal site.

6. Source of Construction Material:
Pad construction material will be obtained from (if the source is Federally owned, show location on a map): Native materials. All on site.
The use of materials under BLM jurisdiction will conform to 43 CFR § 3610.2-3.

The reserve pit will be lined and located in cut material, with at least 50% of the pit volume being below original ground level. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced as soon as drilling is completed, and shall remain until the pit is dry. As soon as the reserve pit has dried, all areas not needed for production will be rehabilitated.

7. Ancillary Facilities: None required. Anticipate up to 2 living trailers for rig personel during drilling and completion.

8. Well Site Layout – depict the pit, rig, cut and fill, topsoil, etc., on a plat with a scale of at least 1" = 50'. See attached maps and plats from ULES.
Access to the well pad will be from: See attached maps and plats from ULES.

To minimize the amount of fugitive dust and spray escaping from the blooie pit, the following blooie line deflection method will be employed: Blooie line will be directed into the base of the dirt embankment surrounding the blooie pit. Water mist will be used to suppress excessive dust. Blooie line will be 6 inches in diameter and the end will be a minimum of 75' from the wellhead. A propane or diesel system will be used for ignition at the end of the blooie line.

The blooie line will be located: At the NE corner of well pad, at least 100 feet from the well head.

9. Plans for Restoration of the Surface:

The top 5 inches of topsoil material will be removed from the location and stockpiled separately on: At east end of well pad.

Topsoil along the access road will be reserved in a place adjacent to the road.

Immediately upon completion of drilling, all equipment that is not necessary for production shall be removed.

The reserve pit and that portion of the location not needed for production will be reclaimed.

Before any dirt work to restore the location takes place, the reserve pit must be completely dry.

All road surfacing will be removed prior to the rehabilitation of roads.

Reclaimed roads will have the berms and cuts reduced and will be closed to vehicle use.

All disturbed areas will be recontoured to replicate the natural slope.

The stockpiled topsoil will be evenly distributed over the disturbed area.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

Seed will be broadcast or drilled between September and November, or at a time specified by the BLM. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage.

The following seed mixture will be used: As specified by BLM.

The abandonment marker will be one of the following, as specified by the BLM:
1) at least four feet above ground level,
2) at restored ground level, or

3) below ground level.

In any case, the marker shall be inscribed with the following: operator name, lease number, well name and surveyed description (township, range, section and either quarter-quarter or footages).

Additional requirements: _____

10. Surface and Mineral Ownership: Federal Surface and Mineral

11. Other Information:

a. Archeological Concerns: See attached Archeological and Paleontological study.

The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized officer (AO). Within five (5) working days, the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and
- a time frame for the AO to complete an expedited review under 36 CFR § 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

b. Threatened and Endangered Species Concerns: None

c. Wildlife Seasonal Restrictions (yes/no): No

d. Off Location Geophysical Testing: None

e. Drainage crossings that require additional State or Federal approval: None

f. Other:

12. Lessee's or Operator's Representative and Certification

Representative:

Name: Andrew Busch

Title: V.P. of Operations

Address: 8400 East Prentice Avenue, Suite #1100, Greenwood Village, Co., 80111

Phone Number: (303)220-7772, (970)260-8128

Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by National Fuel Corporation and its contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application, with bond coverage being provided under BLM bond no. #402157 This statement is subject to the provisions of 18 U.S.C. § 1001 for the filing of a false statement.

Andrew Busch

Signature

VP of Operations — January 29, 2009

Title — Date

HALLIBURTON

National Fuel Corp
8400 E Prentice Ave Ste 1100
Greenwood Village, Colorado 80111

Westwater Federal 32-13

Grand County, Utah
United States of America

Surface and Production Casing Cement Recommendation

Prepared for: Mr. Andy Busch

January 30, 2009
Version: 188368-1

Submitted by:
Aaron James
Halliburton
1125 17th St Suite 1900
Denver, Colorado 80202
303.899.4717

HALLIBURTON

Halliburton appreciates the opportunity to present this proposal and looks forward to being of service to you.

Foreword

Enclosed is our recommended procedure for cementing the casing strings in the referenced well. The information in this proposal includes well data, calculations, materials requirements, and cost estimates. This proposal is based on information from our field personnel and previous cementing services in the area.

Halliburton Energy Services recognizes the importance of meeting society's needs for health, safety, and protection of the environment. It is our intention to proactively work with employees, customers, the public, governments, and others to use natural resources in an environmentally sound manner while protecting the health, safety, and environmental processes while supplying high quality products and services to our customers.

We appreciate the opportunity to present this proposal for your consideration and we look forward to being of service to you. Our Services for your well will be coordinated through the Service Center listed below. If you require any additional information or additional designs, please feel free to contact myself or our field representative listed below.

Prepared by: _____
Sally Hourigan
Proposal Specialist

Submitted by: _____
Aaron James
Technical Advisor

SERVICE CENTER:	Grand Junction
PSL DISTRICT MANAGER:	Brian Carty
SERVICE COORDINATORS:	Jon Trout/Jered Brady
CEMENT ENGINEERS:	Michael Stempky
	Mark Sullivan
	Kyle Mason
	Jeremy Talarovich
	Andrew Wilke
	Mark Sauter
SALES REP:	Shauna Murphy
PHONE NUMBER:	970-523-3600

Cementing Best Practices

1. Cement quality and weight: You must choose a cement slurry that is designed to solve the problems specific to each casing string.

2. Waiting time: You must hold the cement slurry in place and under pressure until it reaches its' initial set without disturbing it. A cement slurry is a time-dependent liquid and must be allowed to undergo a hydration reaction to produce a competent cement sheath. A fresh cement slurry can be worked (thickening or pump time) as long as it is in a plastic state and before going through its' transition phase. If the cement slurry is not allowed to transition without being disturbed, it may be subjected to changes in density, dilution, settling, water separation, and gas cutting that may lead to a lack of zonal isolation and possible bridging in the annulus.

3. Pipe movement: Pipe movement may be one of the single most influential factors in mud removal. Reciprocation and/or rotation mechanically breaks up gelled mud and changes the flow patterns in the annulus to improve displacement efficiency.

4. Mud properties (for cementing):

Rheology:

Plastic Viscosity (PV) < 15 centipoise (cp)
Yield Point (YP) < 10 lb/100 ft2
These properties should be reviewed with the Mud Engineer, Drilling Engineer, and Company Representative(s) to ensure no hole problems are created.

Gel Strength:

The 10-second/10-minute gel strength values should be such that the 10-second and 10-minute readings are close together or flat (i.e., 5/6). The 30-minute reading should be less than 20 lb/100 ft^2. Sufficient shear stress may not be achieved on a primary cement job to remove mud left in the hole if the mud were to develop more than 25 lb/100 ft^2 of gel strength.

Fluid Loss:

Decreasing the filtrate loss into a permeable zone enhances the creation of a thin, competent filter cake. A thin, competent filter cake created by a low fluid loss mud system is desirable over a thick, partially gelled filter cake. A mud system created with a low fluid loss will be more easily displaced. The fluid loss value should be < 15 cc's (ideal would be 5 cc's).

5. Circulation: Prior to cementing circulate full hole volume twice, or until well conditioned mud is being returned to the surface. There should be no cutting in the mud returns. An annular velocity of 260 feet per minute is optimum (SPE/IADC 18617), if possible.

6. Flow rate: Turbulent flow is the most desirable flow regime for mud removal. If turbulence cannot be achieved pump at as high a flow rate that can practically and safely be used to create the maximum flow energy. The highest mud removal is achieved when the maximum flow energy is obtained.

7. Pipe Centralization: The Cement will take the path of least resistance, therefore proper centralization is important to help prevent the casing from contacting the borehole wall. A minimum standoff of 70% should be targeted for optimum displacement efficiency.

8. Rat hole: A weighted viscous pill placed in the rat hole prior to cementing will minimize the risk of higher density cement mixing with lower density mud when the well is static.

9. Top and Bottom plugs: A top and bottom plug are recommended to be run on all primary casing jobs. The bottom plug should be run after the spacer and ahead of the first cement slurry.

10. Spacers and flushes: Spacers and/or flushes should be used to prevent contamination between the cement slurry and the drilling fluid. They are also used to clean the wellbore and aid with bonding. To determine the volume, either a minimum of 10 minutes contact time or 1000 ft. of annular fill, whichever is greater, is recommended.

Job Information — Surface Casing

Well Name: Westwater Federal — Well #: 32-13

12 1/4" Surface Openhole	0 - 300 ft (MD)
Inner Diameter	12.250 in
Job Excess	100 %
8 5/8" Surface Casing	0 - 300 ft (MD)
Outer Diameter	8.625 in
Inner Diameter	8.097 in
Linear Weight	24 lbm/ft

Spacer:

Total Spacer	= 56.15 ft^3
	= 10.00 bbl

Cement : (300.00 ft fill)

300.00 ft * 0.4127 ft^3/ft * 100 %	= 247.64 ft^3
Primary Cement	= 247.64 ft^3
	= 44.11 bbl

Shoe Joint Volume: (0.00 ft fill)

0.00 ft * 0.3576 ft^3/ft	= 0.00 ft^3
	= 0.00 bbl
Tail plus shoe joint	= 247.64 ft^3
	= 44.11 bbl
Total Tail	= 119 sks

Total Pipe Capacity:

300.00 ft * 0.3576 ft^3/ft	= 107.27 ft^3
	= 19.11 bbl

Displacement Volume to Shoe Joint:

Capacity of Pipe - Shoe Joint	= 19.11 bbl - 0.00 bbl
	= 19.11 bbl

Fluid Instructions

Fluid 1: Water Spacer

Fresh Water

Fluid Density:	8.330 lbm/gal
Fluid Volume:	10 bbl

Fluid 2: Primary Cement

Rockies LT

0.25 lbm/sk Poly-E-Flake (Lost Circulation Additive)

0.25 lbm/sk Kwik Seal (Lost Circulation Additive)

Fluid Weight	12.800 lbm/gal
Slurry Yield:	2.085 ft^3/sk
Total Mixing Fluid:	11.428 Gal/sk
Top of Fluid:	0 ft
Calculated Fill:	300 ft
Volume:	44.106 bbl
Calculated Sacks:	118.770 sks
Proposed Sacks:	120 sks

Fluid 3: Water Spacer

Water Displacement

Fluid Density:	8.330 lbm/gal
Fluid Volume:	19.106 bbl

Fluid 4: Top Out Cement

Premium Cement

94 lbm/sk Premium Cement (Cement)

2 % Calcium Chloride (Accelerator)

Fluid Weight	15.800 lbm/gal
Slurry Yield:	1.165 ft^3/sk
Total Mixing Fluid:	5.019 Gal/sk
Proposed Sacks:	200 sks

Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	Fresh Water	8.3		10 bbl
2	Cement	Rockies LT	12.8		120 sks
3	Spacer	Water Displacement	8.3		19.106 bbl
4	Cement	Top Out Cement	15.8		200 sks

Mtrl Nbr	Description	Qty	U/M	Unit Price	Gross Amt	Net Amt
7521	CMT SURFACE CASING BOM	1	JOB		0.00	0.00
	EQUIPMENT & SERVICES					
2	MILEAGE FOR CEMENTING CREW,ZI	120	MI	5.76	691.20	276.48
	Number of Units	1				
1	ZI-MILEAGE FROM NEAREST HES BASE,/UNIT	120	MI	9.79	1,174.80	469.92
	Number of Units	1				
16091	ZI - PUMPING CHARGE	1	EA	4,935.00	4,935.00	1,974.00
	DEPTH	300				
	FEET/METERS (FT/M)	FT				
16092	ADDITIONAL HOURS (PUMPING EQUIPMENT), ZI	0	EA	1,071.00	0.00	0.00
	HOURS	1				
139	ADC (AUTO DENSITY CTRL) SYS, /JOB,ZI	1	JOB	2,275.00	2,275.00	910.00
	NUMBER OF UNITS	1				
132	PORT. DAS W/CEMWIN;ACQUIRE W/HES, ZI	1	JOB	1,649.00	1,649.00	659.60
	NUMBER OF DAYS	1				
114	R/A DENSOMETER W/CHART RECORDER,/JOB,ZI	1	JOB	1,285.00	1,285.00	514.00
	NUMBER OF UNITS	1				
90	ZI QUICK LATCH ATTACHMENT	1	JOB	616.00	616.00	246.40
	SIZE IN INCHES/MILLIMETER	8.625				
	INCHES/MILLIMETERS (IN/MM)	IN				
74038	ZI PLUG CONTAINER RENTAL-1ST DAY	1	EA		1,322.00	528.80
	DAYS OR FRACTION (MIN1)	1				
16114	BULK TRUCK, ON SITE,>6HRS,ZI	1	EA	196.00	196.00	78.40
	HOURS OR FRACTION	1				
101227839	PLUG,CMTG,TOP,8 5/8,HWE,7.20 MIN/8.09 MA	1	EA	380.00	380.00	152.00
	SURCHARGES					
7	ENVIRONMENTAL SURCHARGE,/JOB,ZI	1	JOB	134.00	134.00	134.00
8	IRON SAFETY INSPECTION SURCHARGE /JOB ZI	1	JOB	83.00	83.00	83.00
86955	ZI FUEL SURCHG-HEAVY TRKS >1 1/2 TON	120	MI	0.60	72.00	72.00
	Number of Units	1				
86954	ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON	120	MI	0.20	24.00	24.00
	Number of Units	1				
372867	Cmt PSL - DOT Vehicle Charge, CMT	3	EA	241.00	723.00	723.00
87605	ZI FUEL SURCHG-CMT & CMT ADDITIVES	60	MI	0.20	190.20	190.20
	NUMBER OF TONS	15.85				
	CEMENTING MATERIALS					
76400	ZI MILEAGE,CMT MTLS DEL/RET MIN	60	MI	3.35	3,185.85	1,274.34
	NUMBER OF TONS	15.85				
3965	HANDLE&DUMP SVC CHRG, CMT&ADDITIVES,ZI	350	CF	5.49	1,921.50	768.60
	NUMBER OF EACH	1				
430481	ROCKIES LT	120	SK	67.63	8,115.60	3,246.24
101007446	D-AIR 3000	29	LB	10.19	295.51	118.20
101216940	POLY-E-FLAKE	30	LB	7.84	235.20	94.08
100064010	KWIK SEAL,FINE	30	LB	5.57	167.10	66.84
	Total	**USD**				**29,670.96**
	Discount	**USD**				**17,066.86**
	Discounted Total	**USD**				**12,604.10**

HALLIBURTON

Primary Plant: Grand Junction, CO, USA
Secondary Plant: Grand Junction, CO, USA

Price Book Ref: 01 Western US
Price Date: 1/30/2009

Mtrl Nbr	Description	Qty	U/M	Unit Price	Gross Amt	Net Amt
7521	CMT SURFACE CASING BOM	1	JOB		0.00	0.00
100003685	CLASS G / PREMIUM	200	SK	42.24	8,448.00	3,379.20
100005053	CALCIUM CHLORIDE HI TEST PLT	5	SK	251.00	1,255.00	502.00
	Total	**USD**				**9,703.00**
	Discount	**USD**				**5,821.80**
	Discounted Total	**USD**				**3,881.20**

Primary Plant: Grand Junction, CO, USA
Secondary Plant: Grand Junction, CO, USA

Price Book Ref: 01 Western US
Price Date: 1/30/2009

Mtrl Nbr	Description	Qty	U/M	Unit Price	Gross Amt	Net Amt
7521	CMT SURFACE CASING BOM	1	JOB		0.00	0.00
	8 5/8" Float Equipment					
100004727	SHOE,GID,8-5/8 8RD	1	EA	614.00	614.00	245.60
100004702	VLVASSY,INSR FLOAT,8-5/8 8RD, 24 lbs/ft	1	EA	679.00	679.00	271.60
100004484	CENTRALIZER ASSY - API - 8-5/8 CSG X	5	EA	195.00	975.00	390.00
100004628	CLAMP - LIMIT - 8-5/8 - HINGED -	1	EA	56.80	56.80	22.72
100005045	KIT,HALL WELD-A	1	EA	75.00	75.00	30.00
	Total	**USD**				**2,399.80**
	Discount	**USD**				**1,439.88**
	Discounted Total	**USD**				**959.92**

Primary Plant: Grand Junction, CO, USA
Secondary Plant: Grand Junction, CO, USA

Price Book Ref: 01 Western US
Price Date: 1/30/2009

Job Information — Production Casing

Well Name: Westwater Federal — Well #: 32-13

8 5/8" Surface Casing	0 - 300 ft (MD)
Outer Diameter	8.625 in
Inner Diameter	8.097 in
Linear Weight	24 lbm/ft
7 7/8" Production Openhole	300 - 2800 ft (MD)
Inner Diameter	7.875 in
Job Excess	50 %
4 1/2" Production Casing	0 - 2800 ft (MD)
Outer Diameter	4.500 in
Inner Diameter	4.000 in
Linear Weight	11.600 lbm/ft

Spacer:

Total Spacer	= 112.29 ft^3
	= 20.00 bbl

Cement : (1720.00 ft fill)

300.00 ft * 0.2471 ft^3/ft * 0 %	= 74.14 ft^3
1420.00 ft * 0.2278 ft^3/ft * 50 %	= 485.21 ft^3
Total Foamed Lead Cement	= 559.35 ft^3
	= 99.62 bbl
Sacks of Cement	= 223 sks

Cement : (1080.00 ft fill)

1080.00 ft * 0.2278 ft^3/ft * 50 %	= 369.03 ft^3
Tail Cement	= 369.03 ft^3
	= 65.73 bbl

Shoe Joint Volume: (0.00 ft fill)

0.00 ft * 0.0873 ft^3/ft	= 0.00 ft^3
	= 0.00 bbl
Tail plus shoe joint	= 369.03 ft^3
	= 65.73 bbl
Total Tail	= 178 sks

Total Pipe Capacity:

2800.00 ft * 0.0873 ft^3/ft	= 244.35 ft^3
	= 43.52 bbl

Displacement Volume to Shoe Joint:

Capacity of Pipe - Shoe Joint	= 43.52 bbl - 0.00 bbl
	= 43.52 bbl

Fluid Instructions
Fluid 1: Water Based Spacer
MUD FLUSH

Fluid Density:	8.400 lbm/gal
Fluid Volume:	20 bbl

Fluid 2: Foamed Lead Cement
Type V Cement
94 lbm/sk Cement Standard Type V (Cement-non-api)
0.3 % Versaset (Thixotropic Additive)
5 % Cal-Seal 60 (Accelerator)
1.5 % Zonesealant 2000 (Foamer)

Fluid Weight	14 lbm/gal
Slurry Yield:	1.588 ft^3/sk
Total Mixing Fluid:	8.086 Gal/sk
Top of Fluid:	0 ft
Calculated Fill:	1720 ft
Volume:	99.624 bbl
Calculated Sacks:	223.236 sks
Proposed Sacks:	225 sks

Fluid 3: Tail Cement
Rockies LT
0.25 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight	12.800 lbm/gal
Slurry Yield:	2.079 ft^3/sk
Total Mixing Fluid:	11.426 Gal/sk
Top of Fluid:	1720 ft
Calculated Fill:	1080 ft
Volume:	65.727 bbl
Calculated Sacks:	177.503 sks
Proposed Sacks:	180 sks

Fluid 4: Water Spacer
Water Displacement

Fluid Density:	8.330 lbm/gal
Fluid Volume:	43.520 bbl

Fluid 5: Cap Cement
Type V Cement
94 lbm/sk Cement Standard Type V (Cement-non-api)
12 % Cal-Seal 60 (Accelerator)
3 % Calcium Chloride (Accelerator)

Fluid Weight	14.200 lbm/gal
Slurry Yield:	1.659 ft^3/sk
Total Mixing Fluid:	8.183 Gal/sk
Proposed Sacks:	50 sks

Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	MUD FLUSH	8.4		20 bbl
2	Cement	Type V Foamed Lead Cement	14.0		225 sks
3	Cement	Rockies LT Tail	12.8		180 sks
4	Spacer	Water Displacement	8.3		43.520 bbl
5	Cement	Cap Cement - Type V	14.2		50 sks

Foam Output Parameter Summary:

Fluid #	Fluid Name	Unfoamed Liquid Volume	Beginning Density lbm/gal	Ending Density lbm/gal	Beginning Rate scf/bbl	Ending Rate scf/bbl
Stage 1						
2	Type V Foamed Lead Cement	63.14bbl	9.0	9.0	24.2	200.8

Foam Design Specifications:

Foam Calculation Method: Constant Density
Backpressure: 100 psig
Bottom Hole Circulating Temp: 90 degF
Mud Outlet Temperature: 80 degF

Calculated Gas = 7223.2 scf
Additional Gas = 20000 scf
Total Gas = 27223.2 scf

Mtrl Nbr	Description	Qty	U/M	Unit Price	Gross Amt	Net Amt
7523	CMT PRODUCTION CASING BOM	1	JOB		0.00	0.00
	EQUIPMENT & SERVICES					
2	MILEAGE FOR CEMENTING CREW,ZI	120	MI	5.76	691.20	276.48
	Number of Units	1				
1	ZI-MILEAGE FROM NEAREST HES BASE,/UNIT	120	MI	9.79	1,174.80	469.92
	Number of Units	1				
16091	ZI - PUMPING CHARGE	1	EA	5,584.00	5,584.00	2,233.60
	DEPTH	2800				
	FEET/METERS (FT/M)	FT				
16092	ADDITIONAL HOURS (PUMPING EQUIPMENT), ZI	0	EA	1,071.00	0.00	0.00
	HOURS	1				
139	ADC (AUTO DENSITY CTRL) SYS, /JOB,ZI	1	JOB	2,275.00	2,275.00	910.00
	NUMBER OF UNITS	1				
114	R/A DENSOMETER W/CHART RECORDER,/JOB,ZI	1	JOB	1,285.00	1,285.00	514.00
	NUMBER OF UNITS	1				
90	ZI QUICK LATCH ATTACHMENT	1	JOB	491.00	491.00	196.40
	SIZE IN INCHES/MILLIMETER	4.5				
	INCHES/MILLIMETERS (IN/MM)	IN				
74038	ZI PLUG CONTAINER RENTAL-1ST DAY	1	EA		1,322.00	528.80
	DAYS OR FRACTION (MIN1)	1				
16114	BULK TRUCK, ON SITE,>6HRS,ZI	1	EA	196.00	196.00	78.40
	HOURS OR FRACTION	1				
101241019	PLUG,CMTG,TOP,4 1/2,HWE,3.65 MIN/4.14 MA	1	EA	186.00	186.00	74.40
	Zoneseal Charges					
130104	PORT. DATA ACQUIS. W/OPTICEM RT W/HES	1	EA	2,549.00	2,549.00	1,019.60
	DAYS OR PARTIAL DAY(WHOLE NO.)	1				
130443	ZONESEAL CERTIFIED SPECIALIST H/DAY/MO	1	H	298.00	2,384.00	953.60
	TOTAL NUMBER	8				
	HR/DAY/WEEK/MTH/YEAR/JOB/RUN					
222	ZI-ZONESEAL EQUIPMENT PACKAGE	1	EA		8,980.00	3,592.00
	DAYS OR FRACTION (MIN5)	5				
213	AUTO FOAMER INJECTION PUMP,0-4HRS,ZI	1	EA		4,604.00	1,841.60
	HOURS OR FRACTION (MIN4)	4				
14780	ZONESEAL ISOLATION PROCESS	1	FT	13,008.00	13,008.00	5,203.20
	DEPTH	2800				
	FEET/METERS (FT/M)	FT				
	SURCHARGES					
7	ENVIRONMENTAL SURCHARGE,/JOB,ZI	1	JOB	134.00	134.00	134.00
8	IRON SAFETY INSPECTION SURCHARGE /JOB ZI	1	JOB	83.00	83.00	83.00
86955	ZI FUEL SURCHG-HEAVY TRKS >1 1/2 TON	120	MI	0.60	72.00	72.00
	Number of Units	1				
86954	ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON	120	MI	0.20	24.00	24.00
	Number of Units	1				
372867	Cmt PSL - DOT Vehicle Charge, CMT	4	EA	241.00	964.00	964.00
87605	ZI FUEL SURCHG-CMT & CMT ADDITIVES	60	MI	0.20	278.28	278.28
	NUMBER OF TONS	23.19				
	CEMENTING MATERIALS					
76400	ZI MILEAGE,CMT MTLS DEL/RET MIN	60	MI	3.35	4,661.19	1,864.48
	NUMBER OF TONS	23.19				

HALLIBURTON

Mtrl Nbr	Description	Qty	U/M	Unit Price	Gross Amt	Net Amt
3965	HANDLE&DUMP SVC CHRG, CMT&ADDITIVES,ZI	512	CF	5.49	2,810.88	1,124.35
	NUMBER OF EACH	1				
13383	MUD FLUSH	840	GAL	2.16	1,814.40	725.76
101394863	STANDARD TYPE V	225	SK	41.55	9,348.75	3,739.50
100007865	VERSASET	64	LB	12.12	775.68	310.27
101217146	CALSEAL 60	22	SK	55.80	1,227.60	491.04
101207218	ZONESEALANT 2000	28	GAL	180.00	5,040.00	2,016.00
430481	ROCKIES LT	180	SK	67.63	12,173.40	4,869.36
101216940	POLY-E-FLAKE	45	LB	7.84	352.80	141.12
	CAP CEMENT					
101394863	STANDARD TYPE V	50	SK	41.55	2,077.50	831.00
101217146	CALSEAL 60	12	SK	55.80	669.60	267.84
100005053	CALCIUM CHLORIDE HI TEST PLT	2	SK	251.00	502.00	200.80
	Total	**USD**				**87,739.08**
	Discount	**USD**				**51,710.28**
	Discounted Total	**USD**				**36,028.80**

Primary Plant: Grand Junction, CO, USA
Secondary Plant: Grand Junction, CO, USA

Price Book Ref: 01 Western US
Price Date: 1/30/2009

Mtrl Nbr	Description	Qty	U/M	Unit Price	Gross Amt	Net Amt
342210	N2 BOM-Foam Cementing w/o CT	1	JOB		0.00	0.00
	NITROGEN CHARGES					
13459	Nitrogen Charge	27223	SCF	6.92	1,883.83	941.91
3567	MILEAGE FOR NITROGEN EQUIPMENT	120	MI	9.79	1,174.80	587.40
	Number of Units	1				
353672	N2 Pmp Chg; 0-4K SCFM/0-113 SCMM	1	EA	4,030.00	4,030.00	2,015.00
	PUMPING PRESSURE	5000				
	PRESSURE UNITS (PSI/MPA/BAR)	PSI				
16260	NON PUMPING TIME IN EXCESS OF 4 HOURS	1	EA		1,812.00	906.00
	HOURS OR FRACTION (MIN4)	1				
3587	N2 CREW MILEAGE	120	MI	5.76	691.20	345.60
	Number of Units	1				
	SubTotal		**USD**		**9,591.83**	**4,795.91**
	SURCHARGES					
87053	N2 CARS-PICKUPS (< 11/2 TONS)/MILE¿¿¿	120	MI	0.20	24.00	24.00
	Number of Units	1				
87054	N2 HEAVY TRUCKS (> 11/2 TONS)/MILE¿¿¿¿	120	MI	0.60	72.00	72.00
	Number of Units	1				
373155	N2 DOT Vehicle Charge	2	EA	241.00	482.00	482.00
	Total	**USD**				**10,169.83**
	Discount	**USD**				**4,795.92**
	Discounted Total	**USD**				**5,373.91**

WellNite Plant: Grand Junction CO USA Wellnite

Price Book Ref: 01 Western US
Price Date: 1/30/2009

Mtrl Nbr	Description	Qty	U/M	Unit Price	Gross Amt	Net Amt
7523	CMT PRODUCTION CASING BOM	1	JOB		0.00	0.00
	4 1/2 Float Equipment					
100004879	SHOE,FLT,4-1/2 8RD,2-3/4 SSII	1	EA	599.00	599.00	239.60
100004752	CLR,FLT,4-1/2 8RD,9.5-13.5PPF,2-3/4	1	EA	700.00	700.00	280.00
100004622	CLAMP - LIMIT - 4-1/2 - HINGED -	1	EA	44.20	44.20	17.68
100004473	CENTRALIZER ASSY - API - 4-1/2 CSG X	20	EA	126.00	2,520.00	1,008.00
100005045	KIT,HALL WELD-A	1	EA	75.00	75.00	30.00
101240191	PLUG,CMTG,BOT,4 1/2,HWE,3.65 MIN/4.14 MA	1	EA	186.00	186.00	74.40
	Total	**USD**				**4,124.20**
	Discount	**USD**				**2,474.52**
	Discounted Total	**USD**				**1,649.68**

Primary Plant: Grand Junction, CO, USA
Secondary Plant: Grand Junction, CO, USA

Price Book Ref: 01 Western US
Price Date: 1/30/2009

Conditions

NOTE

The cost in this analysis is good for the materials and/or services outlined within and shall be valid for 30 days from the date of this proposal. In order to meet your needs under this proposal with a high quality of service and responsive timing, Halliburton will be allocating limited resources and committing valuable equipment and materials to your area of operations. Accordingly, the discounts reflected in this proposal are available only for materials and services awarded on a first-call basis. Alternate pricing may apply in the event that Halliburton is awarded work on any basis other than as a first-call provider.

The unit prices stated in the proposal are based on our current published prices. The projected equipment, personnel, and material needs are only estimates based on information about the work presently available to us. At the time the work is actually performed, conditions then existing may require an increase or decrease in the equipment, personnel, and/or material needs. Charges will be based upon unit prices in effect at the time the work is performed and the amount of equipment, personnel, and/or material actually utilized in the work. Taxes, if any, are not included. Applicable taxes, if any, will be added to the actual invoice.

It is understood and agreed between the parties that with the exception of the subject discounts, all services performed and equipment and materials sold are provided subject to Halliburton's General Terms and Conditions contained in our current price list, (which include LIMITATION OF LIABILITY and WARRANTY provisions), and pursuant to the applicable Halliburton Work Order Contract (whether or not executed by you), unless a Master Service and/or Sales Contract applicable to the services, equipment, or materials supplied exists between your company and Halliburton, in which case the negotiated Master Contract shall govern the relationship between the parties. A copy of the latest version of our General Terms and Conditions is available from your Halliburton representative or at: http://www.halliburton.com/hes/general_terms_conditions.pdf for your convenient review, and we would appreciate receiving any questions you may have about them. Should your company be interested in negotiating a Master Contract with Halliburton, our Law Department would be pleased to work with you to finalize a mutually agreeable contract. In this connection, it is also understood and agreed that Customer will continue to execute Halliburton usual field work orders and/or tickets customarily required by Halliburton in connection with the furnishing of said services, equipment, and materials.
Any terms and conditions contained in purchase orders or other documents issued by the customer shall be of no effect except to confirm the type and quantity of services, equipment, and materials to be supplied to the customer.
If customer does not have an approved open account with Halliburton or a mutually executed written contract with Halliburton, which dictates payment terms different than those set forth in this clause, all sums due are payable in cash at the time of performance of services or delivery of equipment, products, or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice.

Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, customer agrees to pay attorney fees of 20% of the unpaid account, plus all collection and court costs.

Form UT-8100-3
(December 2000)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE

Summary Report of Cultural Resources Inspection

Project No.: U-08-GB-1111b
[GRI Project No.28112]

1. Report Title: **Class III cultural resource inventory for the proposed Westwater Fed. #32-13 well location and short access in Grand County Utah National Fuel Corporation**
2. Report Date: **18 November 2008** 3. Date(s) of Survey: **17 November 2008**
4. Development Company: **BLM Moab Field Office**
5. Responsible Institution: **National Fuel Corporation**
6. Responsible Individuals Principal Investigator: Field Supervisor: **Carl E. Conner**

   Report Author(s): **Carl E. Conner and Barbara J. Davenport**
7. BLM Field Office: **Moab Field Office** 8. County(ies): **Grand**
9. Fieldwork Location:

   USGS Map: **Dry Canyon 1987**
   T. 17 S., R. 21 E., Section 13, C N½
10. Record Search:

Location of Records Searched: **BLM Moab Field Office** Date of Record Search: **13 November 2008**

11. Description of Proposed Project: **Management Document**

12. Description of Examination Procedures: **A Class III, 100% pedestrian, cultural resources survey of the proposed well location was made by walking a series of concentric circles around the flagged centers to a diameter of 750 feet. The related linear route not included within the 10-acre study plot was surveyed by walking four parallel transects spaced at 15m intervals and centered on the flagged centerline to cover a 200 foot wide corridor.**

13. Area Surveyed:		BLM	OTHER FED	STATE	PRI.
Linear Miles	Intensive:	**0.06 miles (1.4 acres)**			
	Recon/Intuitive:				
Acreage	Intensive:	**10**			
	Recon/Intuitive:				

14. Sites Recorded:

Smithsonian Site Numbers		#	BLM	OTHER FED	STAT E	PRI
Revisits	NR Eligible	0				
(no IMACS form)	Not Eligible	0				
Revisits	NR Eligible	0				
updated IMACS)	Not Eligible	0				
New Recordings	NR Eligible	0				
	Not Eligible	0				
Total Number of Archaeological Sites		**0**				
Historic Structures (USHS Form)		**0**				
Total National Register Eligible Sites		**0**				

15. Description of Findings: (see attached report) **Files searches conducted through the BLM indicated no sites were previously recorded with the present project boundaries. No resources were newly recorded.**

16. Collection Yes **No**
(If Yes) Curation Facility: Accession Number(s):

17. Conclusion/Recommendations: **Accordingly, since no significant historical properties will be affected by the project, archaeological clearance is recommended.**

UTAH STATE COVER PAGE

Must Accompany All Project Reports
Submitted to Utah SHPO

Project Name: **Class III cultural resource inventory for the proposed Westwater Fed. #32-13 well location and short access in Grand County Utah, for National Fuel Corporation**

State Proj. No. **U08-GB-1111b**

Report Date: **18 November 2008** County(ies): **Grand**

Principal Investigator: **Carl E. Conner** Field Supervisor(s): **Carl E. Conner**

Records search completed at: **BLM-Moab** Record search date(s): **11/13/2008**

Acreage Surveyed ~ Intensive: **11.4 acres** (BLM) Recon/Intuitive: **0 acres**

7.5' Series USGS Map Reference(s): **Dry Canyon 1987**

Sites Reported	**Count**	**Smithsonian Site Numbers**
Archaeological Sites Revisits (no inventory form update)	0	
Revisits (updated IMACS site inventory form attached)	0	
New recordings (IMACS site inventory form attached)	0	
Total Count of Archaeological Sites	0	
Historic Structures (USHS 106 site info form attached)	0	
Total National Register Eligible Sites	0	

----------Checklist of Required Items----------

1. _X_ Copy of the Final Report
2. ____ Copy of 7.5' Series USGS Map with Surveyed/Excavated Area Clearly Identified.
3. Completed IMACS Site Inventory Forms, Including: _X_ Continuation Sheets
   __ Parts A and B or C, __ The IMACS Encoding Form,
   __ Site Sketch Map, __ Photographs
   __ Copy of the appropriate 7.5' Series USGS Map w/ the Site Location Clearly Marked and Labeled with the Smithsonian Site Number
4. _X_ Completed "Cover Sheet" Accompanying Final Report and Survey Materials (Please make certain all of your checked items are attached.)

CLASS III CULTURAL RESOURCE INVENTORY FOR THE PROPOSED WESTWATER FED. #32-13 WELL LOCATION AND SHORT ACCESS IN GRAND COUNTY, UTAH, FOR NATIONAL FUEL CORPORATION

Declaration of Negative Findings

GRI Project No. 28112
18 November 2008

Prepared by

Grand River Institute
P.O. Box 3543
Grand Junction, Colorado 81502
BLM Antiquities Permit No.08UT54939
UDSH Project Authorization No. U08-GB-1111b

Carl E. Conner, Principal Investigator

Submitted to

Bureau of Land Management
Moab Field Office
82 East Dogwood
Moab, Utah 84532

Management Summary

Grand River Institute conducted a Class III cultural resource inventory for the proposed Westwater Fed. #32-13 well location and short access in Grand County Utah, for National Fuel Corporation under Utah Division of State History (UDSH) Project Authorization No. U08-GB-1111b and Bureau of Land Management Antiquities Permit No. 08UT-54939. This work was done to meet requirements of Federal and State laws that protect cultural resources. A files search conducted through the BLM-Moab Field Office on the 13th of November 2008 indicated that no cultural resources were previously recorded in the study area.

Field work was completed on the 17th of November 2008. A total of about 11.4 acres (BLM) was inspected. No cultural resources were encountered during the inventory. Accordingly, since no significant historical properties will be affected by the project, archaeological clearance is recommended.

Table of Contents

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Location of Project Area 1

Environment 1

Figure 1. Project location map 2

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Study Objectives 3

Field Methods 4

Study Findings 5

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Introduction

Grand River Institute conducted a Class III cultural resource inventory for the proposed Westwater Fed. #32-13 well location and short access in Grand County Utah, for National Fuel Corporation under Utah Division of State History (UDSH) Project Authorization No. U08-GB-1111b and Bureau of Land Management Antiquities Permit No. 08UT-54939. This work was done to meet requirements of Federal and State laws that protect cultural resources. A files search conducted through the BLM-Moab Field Office on the 13th of November 2008 indicated that no cultural resources were previously recorded in the study area. The field survey was conducted by and report was prepared by Carl E. Conner (Principal Investigator) and Barbara J. Davenport of Grand River Institute. There were no significant limitations to the inventory.

For federally funded or licensed projects, cultural resource inventory studies are done to meet requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321), Executive Order 11593 (36 F.R. 8921), the Historical and Archaeological Data-Preservation Act (AHPA) of 1974 (16 U.S.C. 469), the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701), the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa et seq., as amended). For projects located on State land, surveys are conducted to meet requirements of Utah Code, Title 9, Chapter 8. These laws are concerned with the identification, evaluation, and protection of fragile, non-renewable evidences of human activity, occupation and endeavor reflected in districts, sites, structures, artifacts, objects, ruins, works of art, architecture, and natural features that were of importance in human events. Such resources tend to be localized and highly sensitive to disturbance.

Location of Project Area

The study area lies on the Roan Plateau north of Westwater in Grand County, Utah. The project's proposed well location and new linear route occur in:
T. 17 S., R. 23 E., Section 13; SLBM (Figure 1).

Environment

The project area is within the major geologic subdivision of the Colorado Plateau known as the Uinta Basin Section. In Utah, this section extends from the Uinta Mountains on the north to the Book Cliffs on the south. It is a broad downwarp into which Quaternary- and Tertiary-age deposits were made from the surrounding mountains which include Holocene and Pleistocene pediment deposits, and Eocene-age fluvial and lacustrine sedimentary rocks (Rigby 1976:xi). Physiographically, the basin includes the Uinta basin in the northern portion and the Book Cliffs/Roan Plateau in the south portion. The study area

U-08-GB-1111b

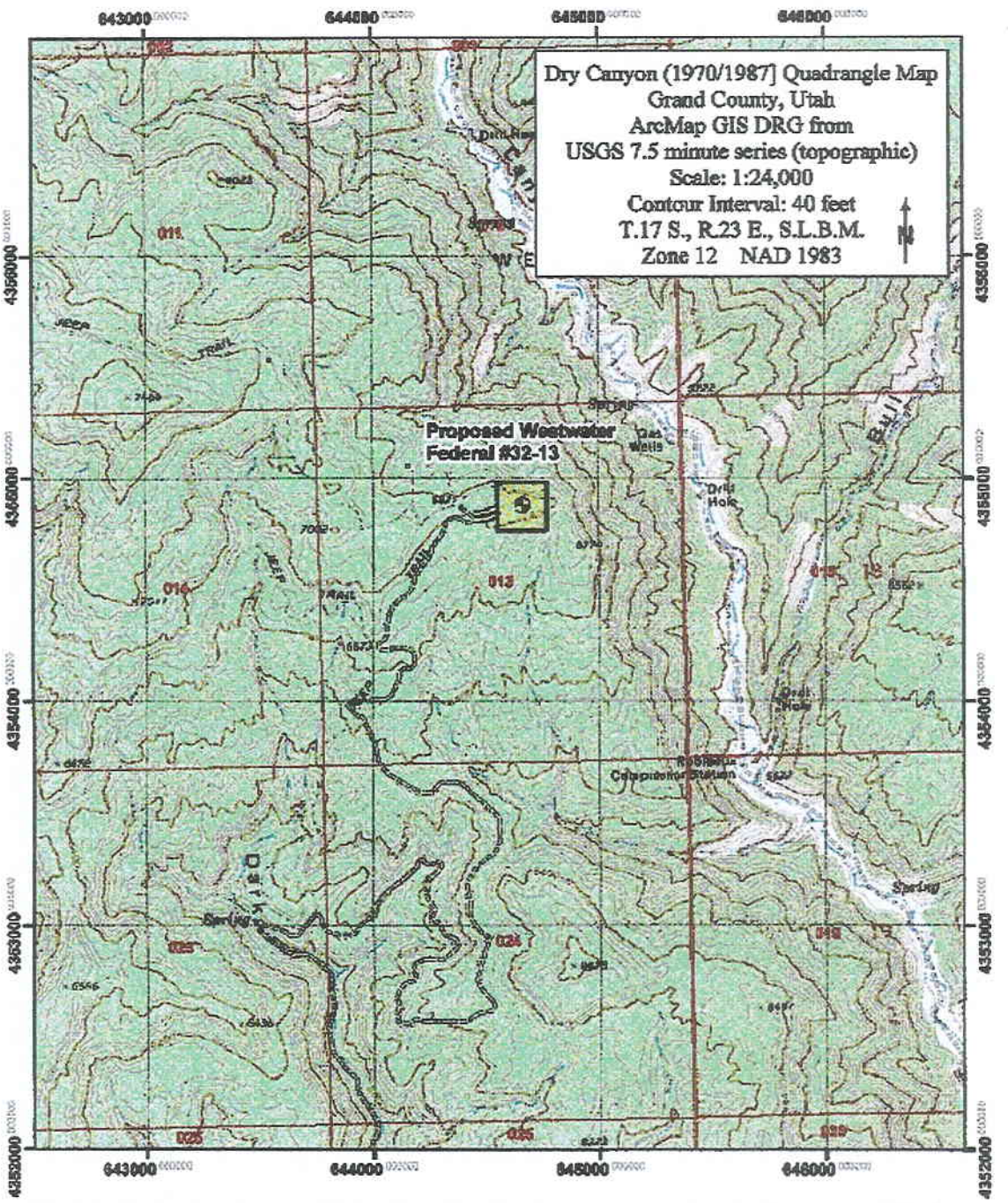

Figure 1. Project location map for the Class III cultural resources inventory for the proposed Westwater Federal #32-13 well location in Grand County, Utah for National Fuels Corporation. Area surveyed is highlighted. [GRI Project #28112, 11/18/08]

occurs in the latter and the Cretaceous-age Wasatch/Colton Formation forms the bedrock. Rocky, sandy loams formed in residuum cover the bedrock on the ridgetop.

Elevations in the project area average 6800 feet. The terrain is a narrow ridgetop covered in pinyon/juniper forest hat has associated rabbitbrush, sagebrush, and grasses. Regional faunal inhabitants include deer, elk, black bear, coyote, mountain lion, cottontails, jack rabbits, and various raptores. A cool, mid-latitude steppe climate prevails. Annual precipitation of this elevation range is between 14 and 18 inches. Temperatures can reach 95°F in mid-summer and -20°F in January. Paleoenvironmental data are scant, but it is generally agreed that gross climatic conditions have remained fairly constant over the last 12,000 years. However, changes in effective moisture, and cooling-warming trends probably affected the prehistoric occupation of the region.

Files Search

Files searches were conducted through the BLM-Moab Field Office on the 13th of November 2008, which indicated that no cultural resources were previously recorded in the study area. No sites have been recorded in the near vicinity although several projects have been completed for the main access road and nearby block inventories (BLM Ref. Nos. 81-374, 81-381, 81-394, and 82-237.)

Regional archaeological studies suggest nearly continuous human occupation or use of the region for at least 10,000 years and include manifestations of the Early Prehistoric Paleoindian, big-game hunting peoples (ca. 11,000 - 6500BC) ; the Middle Prehistoric Archaic hunter/gatherer groups (ca. 6,500-400BC); the Late Prehistoric Formative horticulturalists/foragers (ca. 400BC - AD1300), the pre-horse hunter/gatherers (Early Numic, ca. AD1300 - AD1700), the early historic horse-riding nomads (Late Numic, ca. AD1650 - AD1800); and, the Historic tribes (Ute, Piute, ca. AD1800 - AD1920). Historic records suggest occupation or use by EuroAmerican trappers, settlers, miners, and ranchers as well. Overviews of the prehistory and history of the region are provided in the Utah BLM Cultural Resource Series No. 5: *Sample Inventories of Oil and Gas Fields in Eastern Utah* (Nickens and Larralde 1980); in the Cultural Resource Series No. 22: the *Tar Sands Project: An Inventory and Predictive Model for Central and Southern Utah* (Tipps 1988); and, in the *BLM Grand Resource Area Class I Cultural Resource Inventory* (Horn et al. 1994).

Study Objectives

The purpose of the study was to identify and record all cultural resources within the

area of potential impact and to assess their significance and eligibility to the National Register of Historic Places (NRHP). Paleontological resources were also considered in the inspection. However, a final evaluation of those resources must be provided by a paleontologist permitted by the State of Utah.

Field Methods

A Class III, 100% pedestrian, cultural resources survey of the proposed well location was made by walking a series of N-S and E-W transects spaced at 15m intervals. The related linear routes were inspected by walking a series of four transects along both sides of the flagged centerlines that were spaced at 15-meter intervals to cover 200 foot-wide swaths. A total of about 11.4 acres was intensively surveyed.

Cultural resources were sought as surface exposures and were characterized as sites or isolated finds. Sites were defined as discrete loci of patterned activity greater than 50 years of age and consisting of 5 or more prehistoric artifacts with or without features or over 50 historic artifacts with associated features. Also, a single isolated hearth with no other associated artifacts or features was to be recorded as a site. Isolated finds were defined as less than 5 artifacts without associated features; historic trash dumps without associated features; single core reduction events with a single core and associated reduction debitage; single pot drops where the sherds are from a single vessel; or prospector pits with/or without artifacts and no associated historic structures or features.

Environmental constraints which might be expected included previous natural ground disturbance that has modified the surface so extensively that the likelihood of finding cultural resources is negligible; human activity within the past 50 years that has created a new land surface such that all traces of cultural resources have been eradicated; natural environmental characteristics that are unfavorable to the presence of historic properties; slopes greater than 30% where no potential for rock shelter, rock art, or other cultural properties associated with rock faces or ledges exist; and areas with 100% vegetation coverage.

All cultural resources that qualified as sites (such as prehistoric open camps, lithic scatters, occupied overhangs, rockshelters, and evidence of historic occupation) or isolated finds were recorded as they were encountered to standards set by the BLM and the State. Cultural resources were to be recorded using the following methods of mapping and note taking. The basic approach to the data collection was to be the continuous mapping of observed artifacts and features by recording UTM coordinates (NAD 83 Datum) using a Trimble Geo XT. Site maps were to be created using corrected GPS data and ARCMAP. Photographs were to be taken at each site and include general views and specific artifacts or features. Field notes for this project are on file at Grand River Institute. No artifacts were

collected.

Study Findings

As expected, no cultural or paleontological resources were encountered during the survey. (One modern hearth [post-1960] was encountered, but not recorded.) Accordingly, since no significant historical properties will be affected by the project, archaeological clearance is recommended.

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IPC #08-312

Paleontological Reconnaissance Survey Report

Survey of National Fuel's Proposed Well Pad and Access Road for "Westwater Federal #32-13" (Sec. 13, T 17 S, R 23 E)

Dry Canyon
Topographic Quadrangle
Grand County, Utah

November 14, 2008

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

INTRODUCTION

At the request of Andrew W. Busch of National Fuel Corporation and authorized by the BLM Moab Field Office, a paleontological reconnaissance survey of National Fuel's proposed "Westwater Federal #32-13" (Sec. 13, T 17 S, R 23 E) was conducted by Dave Alderks on November 4, 2008.. The reconnaissance survey was conducted under the Utah BLM Paleontological Resources Use Permit #UT08-006C. This survey to locate, identify and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

FEDERAL AND STATE REQUIREMENTS

As mandated by the US Department of the Interior Bureau of Land Management, paleontologically-sensitive geologic formations in BLM lands that are considered for exchange or may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321.et. Seq., P.L. 91-190);

2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579);

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- ***Class 1*** **– Very Low.** Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- ***Class 2*** **– Low.** Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial, and colluvial deposits etc…)
- ***Class 3*** **– Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
    - ***Class 3a*** **– Moderate Potential.** The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.
    - ***Class 3b*** **– Unknown Potential.** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known.

- ***Class 4*** – **High.** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
    - ***Class 4a*** – Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
    - ***Class 4b*** – Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- ***Class 5*** – **Very High.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
    - ***Class 5a*** - Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
    - ***Class 5b*** - Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional and chronostratigraphic indicators.

LOCATION

National Fuel's proposed well pad and access road for "Westwater Federal #32-13" (Sec. 13, T 17 S, R 23 E) are on land managed by the BLM approximately twenty-eight miles west of interstate 70 and Mack Colorado. The project area can be found on the Dry Canyon 7.5 minute U. S. Geological Survey Quadrangle Map, Grand County, Utah.

PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Mesozoic sediments are especially well represented throughout this portion of North America. The Paradox Basin and the surrounding area are located in East Central Utah and cover an extensive area in and around Moab and Green River, Utah and contain over 20,000 feet of sediments (Ohlen and McIntyre, 1965). Individuals have been collecting fossils from the Mancos Shale, Dakota Formation, and the Morrison Formation for many years (Hintze, 1988). The Mancos Shale is well known for very well preserved ammonites, belemnites, gastropods, and occasional vertebrate marine fossils. The Dakota Formation, in the project area, is known for *Pycnodonte newberryi* (Devil's Toenails) (Hintze, 2004). Recently, extensive research by a number of institutions (College of Eastern Utah, Utah Geologic Survey,

Brigham Young University, Dinosaur National Monument, University of Kansas, and University of Colorado) in the Cedar Mountain Formation has revealed many new scientifically significant fossil resources (Kirkland et. al., 1999), leading to a critical designation by the BLM (Foss, 2007). As for the other formations in the project area, ichnofossils have been found in the Summerville Formation (Wright and Lockley, 1999), dinoflagellates have been found in the Curtis Formation (Evitt, 1961), but no fossils have been recorded from the Entrada Sandstone.

GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

The Paradox Basin and the surrounding area developed in response to the Ancestral Rockies orogenic event during Pennsylvanian time (Stevenson, 2000). As a result of the Uncompahgre section uplift of the Ancestral Rockies, the Paradox Basin subsided, creating an inland sea. The sea regressed and evaporated during Late Pennsylvanian time. This combined with intermittent Uncompahgre uplift through the Permian, lifted the Paradox Basin above sea-level and buried it with clastic sediments (Wengerd and Strickland, 1954). The Salt Valley Anticline partially collapsed during the Colorado Plateau uplift in the Early Cenozoic (Ohlen and McIntyre, 1965). The collapsed anticline caused much of the faulting seen in the project area. The members and formations exposed in the project area (western edge of Paradox Basin) are the Earthy and Slick Rock members of the Entrada Formation, the Curtis Formation, the Summerville Formation, the Tidwell, Saltwash, and Brushy Basin members of the Morrison Formation, the Yellow Cat, Poison Strip, and Ruby Ranch members of the Cedar Mountain Formation, the Dakota Formation, and the Tununk Member of the Mancos Formation and Mesaverde Group.

The Entrada Sandstone is divided into two members in the project area, the eolian sandstone Slick Rock Member and the fluvial Earthy Member (Doelling, 2001). The Curtis Formation was deposited as a result of an advance of the Curtis Sea (Anderson and Lucas, 1994). The shallow sea deposits of the Curtis Formation are less resistant than the eolian deposits of the Entrada Sandstone and have yielded significant marine fossils (Evitt, 1961). The Summerville Formation was deposited in an arid coastal plain during the regression of the Curtis Sea (Anderson and Lucas, 1994), and is known for its gypsum deposits.

The Late Jurassic Morrison was deposited in a semi-arid environment in a variety of lacustrine and fluvial settings (Turner and Peterson, 2004). The Morrison Formation, known for it dinosaur fossils, has yielded more vertebrate fossils than any other formation in the world. The Tidwell Member is characterized by calcareous, thinly bedded lavender, maroon, and light gray siltstone. The Salt Wash Member is identified by large coarse grained, cross-bedded gray sandstone interbedded with red and gray mud/siltstone. The Brushy Basin Member is characterized by variegated maroon, purple, and lavender bentonitic mudstones interspersed with cross-bedded, coarse-grained sandstone channel-fill deposits and calcareous horizons.

The Early Cretaceous Cedar Mountain Formation was deposited in varied environments. The lowest member exposed in the project area is the Yellow Cat Member which was deposited in a low-energy fluvial environment. The Poison Strip Sandstone Member was deposited in a large scale lake environment. The Ruby Ranch Member was deposited in a semi-arid, low-

energy fluvial environment (Kirkland et. al., 1997). The Cedar Mountain Formation has yielded some of the most scientifically significant dinosaur fossils outside the Morrison Formation (Kirkland, 2005).

The late Early Cretaceous Dakota Formation is comprised of fine-grained sandstones and brackish water mudstone deposits. The depositional environment was a series of pulses in the Western Interior Seaway (Young, 1960).

The Mancos Shale was deposited as a result of the transgression of the Western Interior Seaway into east-central Utah (Hintze, 2004). In the project area, the Mancos is characterized by the dark black, deep marine mudstones of the Tununk Shale Member (Doelling, 2001). The Mancos Shale provides a rich abundance of Ammonite fossils (Kirkland, 1990). The Mesaverde Group is a thick coastal plain deposit comprised of coal and carbonaceous shale, crevasse splay and meandering stream deposits, tidally influenced, lowsinuosity fluvial channels, and lagoonal shale and sandstone (Kellison, 1990).

PROJECT AREA

The project area is situated in the Mesa Verde Group. The proposed well pad for "Westwater Federal #32-13" and its access road are located in the SW/NE quarter-quarter section of Sec. 13, T 17 S, R 23 E (Figure 1). The proposed access road is approximately 600 feet long and travels in a northeast direction up a small hill across reworked gray to tan mudstones which overlie light tan well cemented, arkosic, medium-grained sandstones. The well pad is located on two different levels of sandstone platforms with a layer of mudstone between the sandstone bodies. No fossils were found.

SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
"Westwater Federal #32-13" (Sec. 13, T 17 S, R 23 E)	The proposed access road is approximately 600 feet long and travels in a northeast direction up a small hill across reworked gray to tan mudstones which overlie light tan well cemented, arkosic, medium-grained sandstones. The well pad is located on two different levels of sandstone platforms with a layer of mudstone between the sandstone bodies.	No fossils were found. **Class 3a**

RECOMMENDATIONS

A reconnaissance survey was conducted for National Fuel's proposed well pad and access road "Westwater Federal #32-13" (Sec. 13, T 17 S, R 23 E). The well pad and the associated access road covered in this report showed no signs of vertebrate fossils. Therefore, we recommend that no paleontological restrictions should be placed on the development of the projects included in this report.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, Operator (Lease Holder) will report all occurrences of paleontological resources discovered to a geologist with the Moab Field Office of the BLM and the Office of the State Paleontologist. The operator is responsible for informing all persons in the areas who are associated with this project of the requirements for protecting paleontological resources. Paleontological resources found on the public lands are recognized by the BLM and State as constituting a fragile and nonrenewable scientific record of the history of life on earth, and so represent an important and critical component of America's natural heritage. These resources are afforded protection under 43 CFR 3802 and 3809, and penalties possible for the collection of vertebrate fossils are under 43 CFR 8365.1-5.

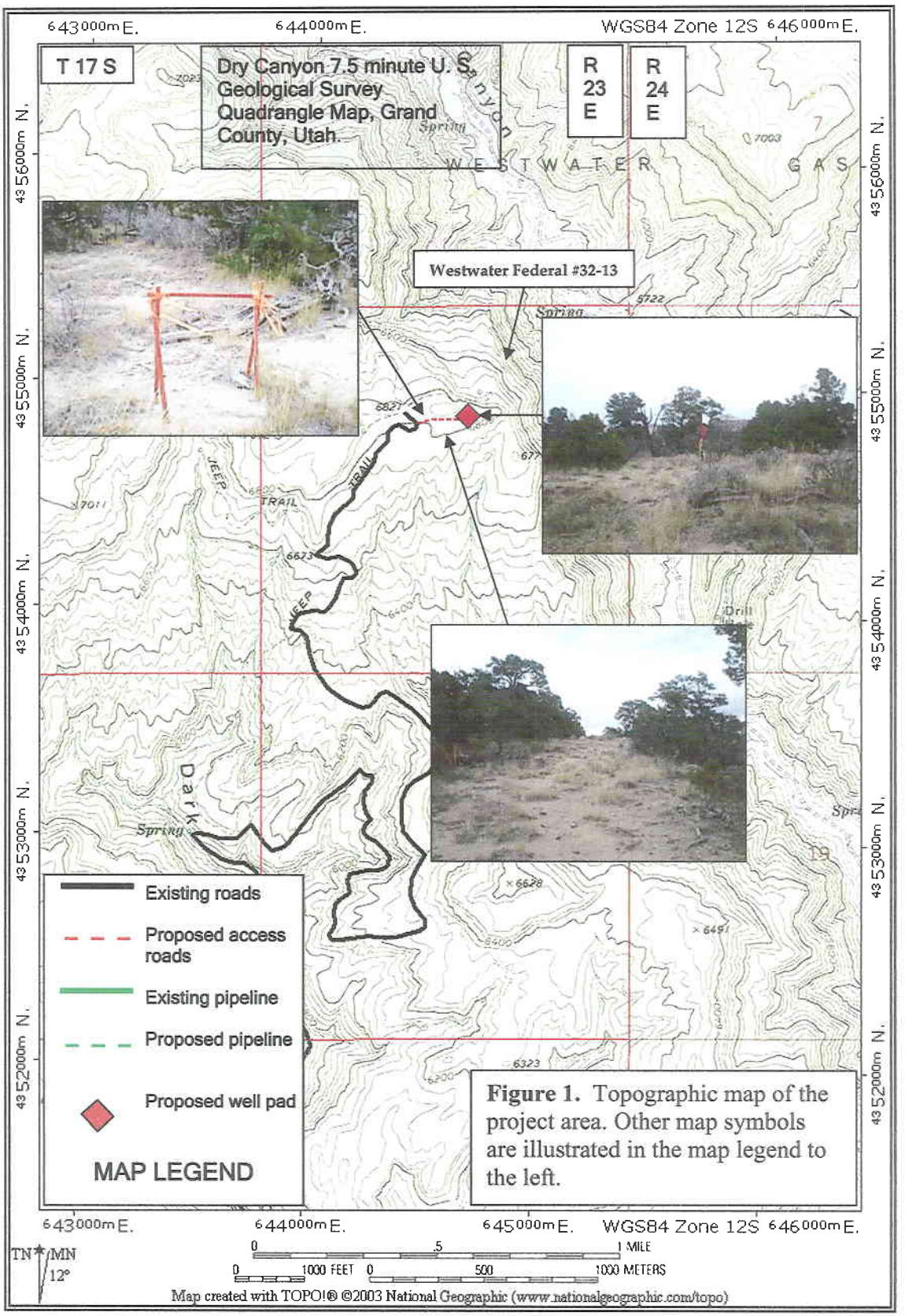

Figure 1. Topographic map of the project area. Other map symbols are illustrated in the map legend to the left.

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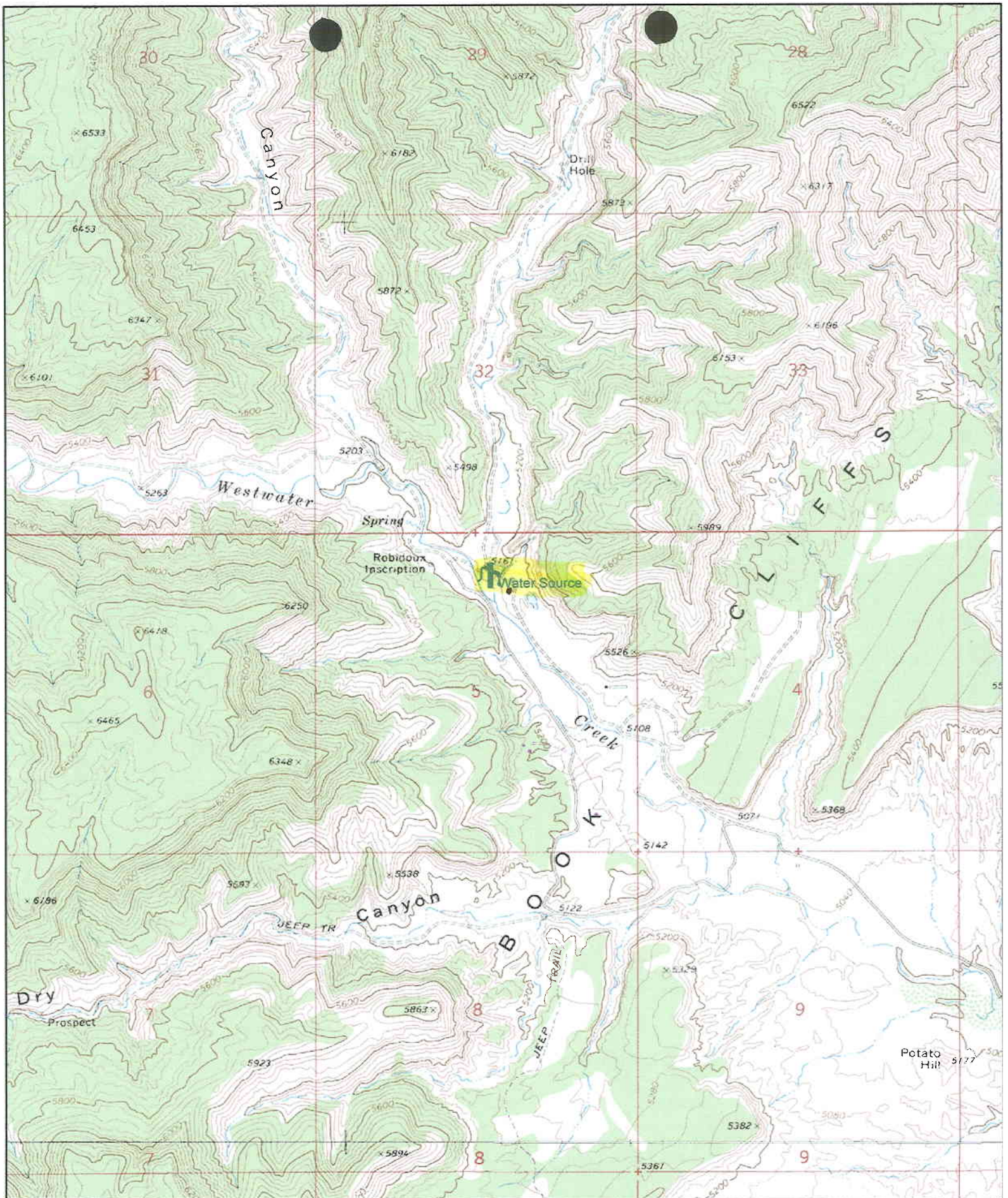


Name: DRY CANYON
Date: 3/18/2009
Scale: 1 inch equals 2000 feet

Location: 039° 16' 28.1" N 109° 16' 56.8" W
Caption: Water Source

NATIONAL FUEL CORPORATION

WESTWATER FEDERAL #32-13

LOCATED IN GRAND COUNTY, UTAH
SECTION 13, T17S, R23E, S.L.B.&M.

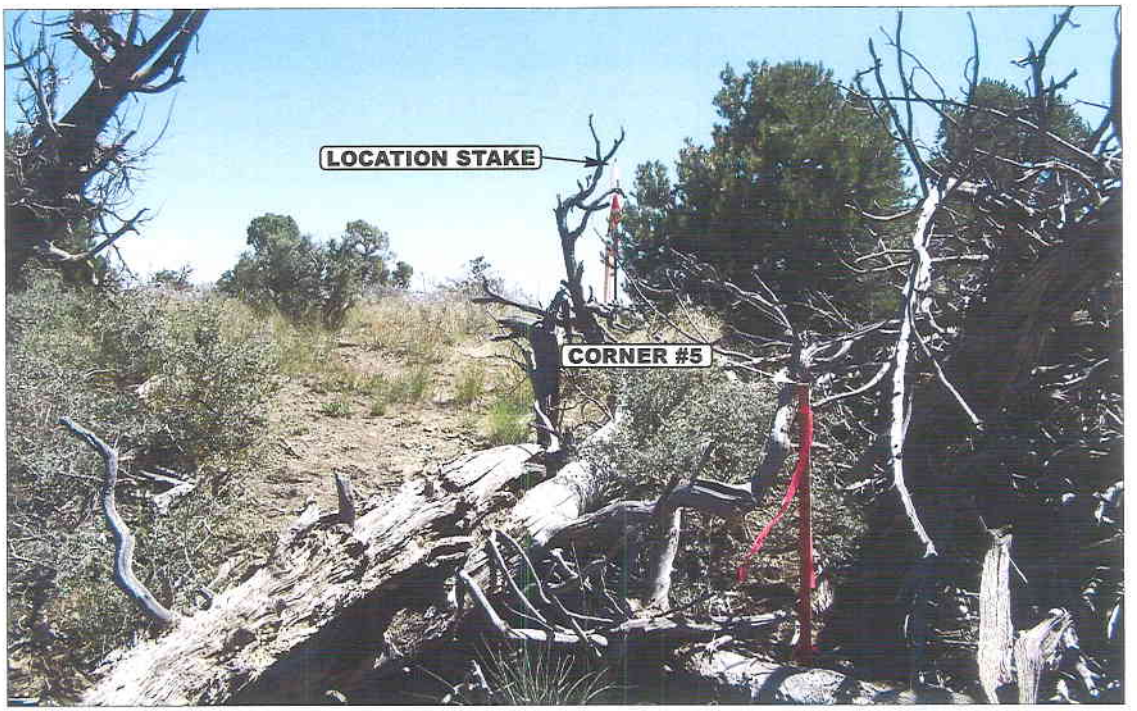


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE **CAMERA ANGLE: SOUTHEASTERLY**

PHOTO: VIEW OF EXISTING ACCESS **CAMERA ANGLE: NORTHEASTERLY**

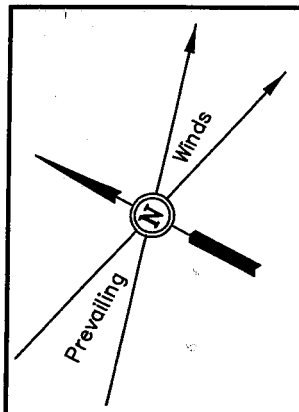
- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	09 MONTH	03 DAY	08 YEAR	PHOTO
TAKEN BY: D.K.	DRAWN BY: L.K.	REVISED: 00-00-00		

NATIONAL FUEL CORPORATION

LOCATION LAYOUT FOR

WESTWATER FEDERAL #32-13
SECTION 13, T17S, R23E, S.L.B.&M.
1502' FNL 2310' FEL



SCALE: 1" = 50'
DATE: 08-29-08
Drawn By: K.G.

NOTE:
Flare Pit is to be located a min. of 100' from the Well Head.

Total Pit Capacity W/2' of Freeboard = 2,500 Bbls. ±
Total Pit Volume = 830 Cu. Yds.

F-5.7'
El. 815.9'

C-3.7'
El. 825.3'

Approx. Toe of Fill Slope

Topsoil Stockpile

Sta. 2+90

F-0.3'
El. 821.3'

Approx. Top of Cut Slope

DATA

CATWALK

FLARE PIT

PIPE RACKS

El. 817.5'
C-3.9'
(btm. pit)

C-0.2'
El. 821.8'

C-3.3'
El. 824.9'

DOG HOUSE

RIG

Sta. 1+60

F-1.0'
El. 820.6'

WATER

PUMP

MUD SHED

MUD TANKS

HOPPER

POWER

TOOLS

FUEL

TRAILER

TOILET

Existing Ledge

Reserve Pit Backfill & Spoils Stockpile

10' WIDE BENCH/DIKE

RESERVE PITS (8' Deep)

Slope 1 1/2:1

Slope 2:1

C-0.3'
El. 821.9'

Sta. 0+46

El. 825.7'
C-12.1'
(btm. pit)

TRASH

F-3.0'
El. 818.6'

STORAGE TANK

Round Corners as Needed

Sta. 0+00

El. 819.9'
F-1.7'

Existing 2" Pipeline

Proposed Pipeline Re-Route

F-16.0'
El. 805.6'

Existing 2-Track

Proposed Access Road

130'

160'

35'

90'

36'

Elev. Ungraded Ground at Location Stake = 6824.9'
Elev. Graded Ground at Location Stake = 6821.6'

REGISTERED LAND SURVEYOR
No. 161319
ROBERT L. KAY
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

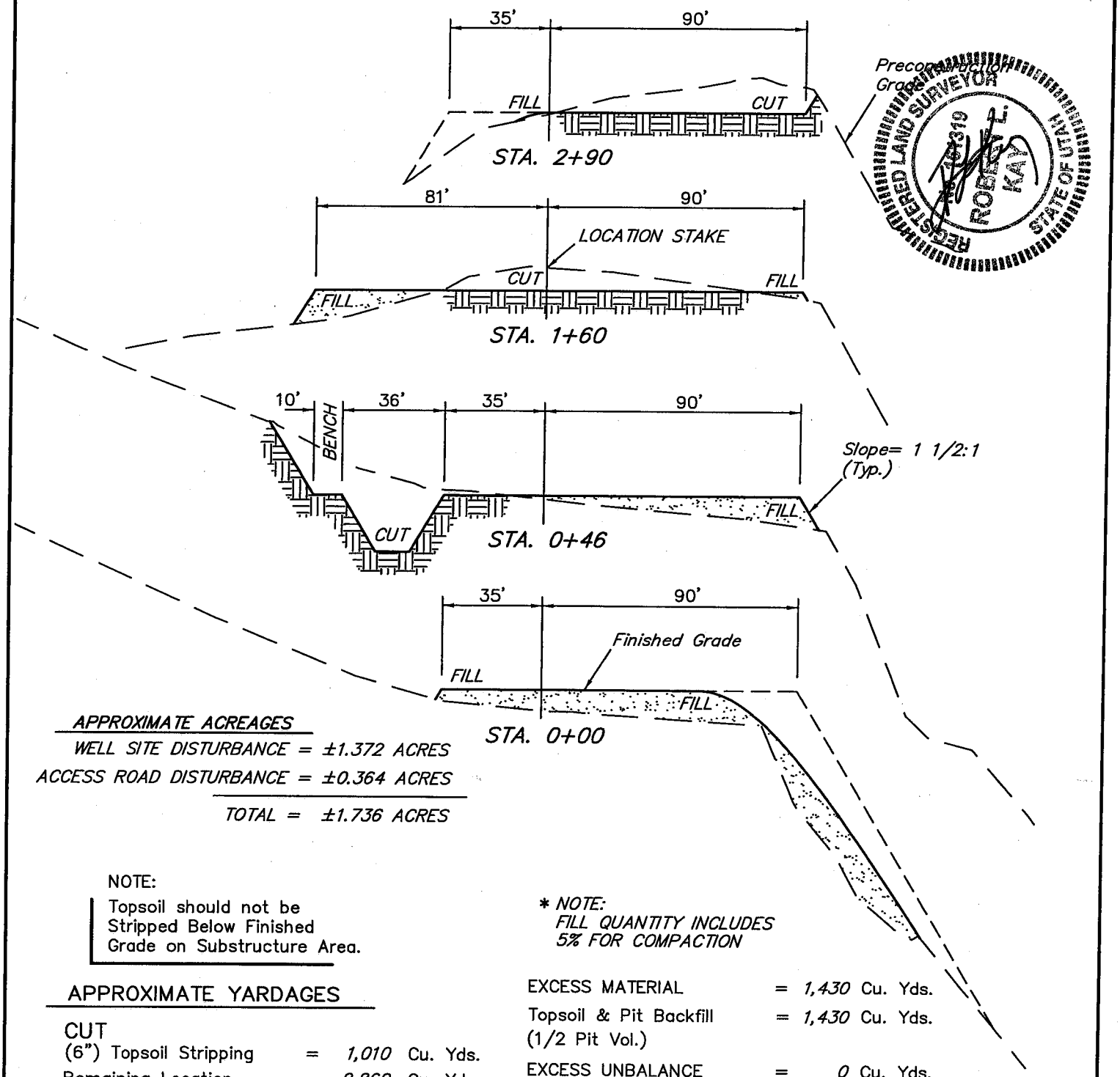
NATIONAL FUEL CORPORATION

TYPICAL CROSS SECTIONS FOR

WESTWATER FEDERAL #32-13
SECTION 13, T17S, R23E, S.L.B.&M.
1502' FNL 2310' FEL

1" = 20'
X-Section Scale
1" = 50'

DATE: 08-29-08
Drawn By: K.G.



REGISTERED LAND SURVEYOR
161319
ROBERT L. KAY
STATE OF UTAH

APPROXIMATE ACREAGES

WELL SITE DISTURBANCE = ±1.372 ACRES
ACCESS ROAD DISTURBANCE = ±0.364 ACRES
TOTAL = ±1.736 ACRES

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

* *NOTE:*
FILL QUANTITY INCLUDES 5% FOR COMPACTION

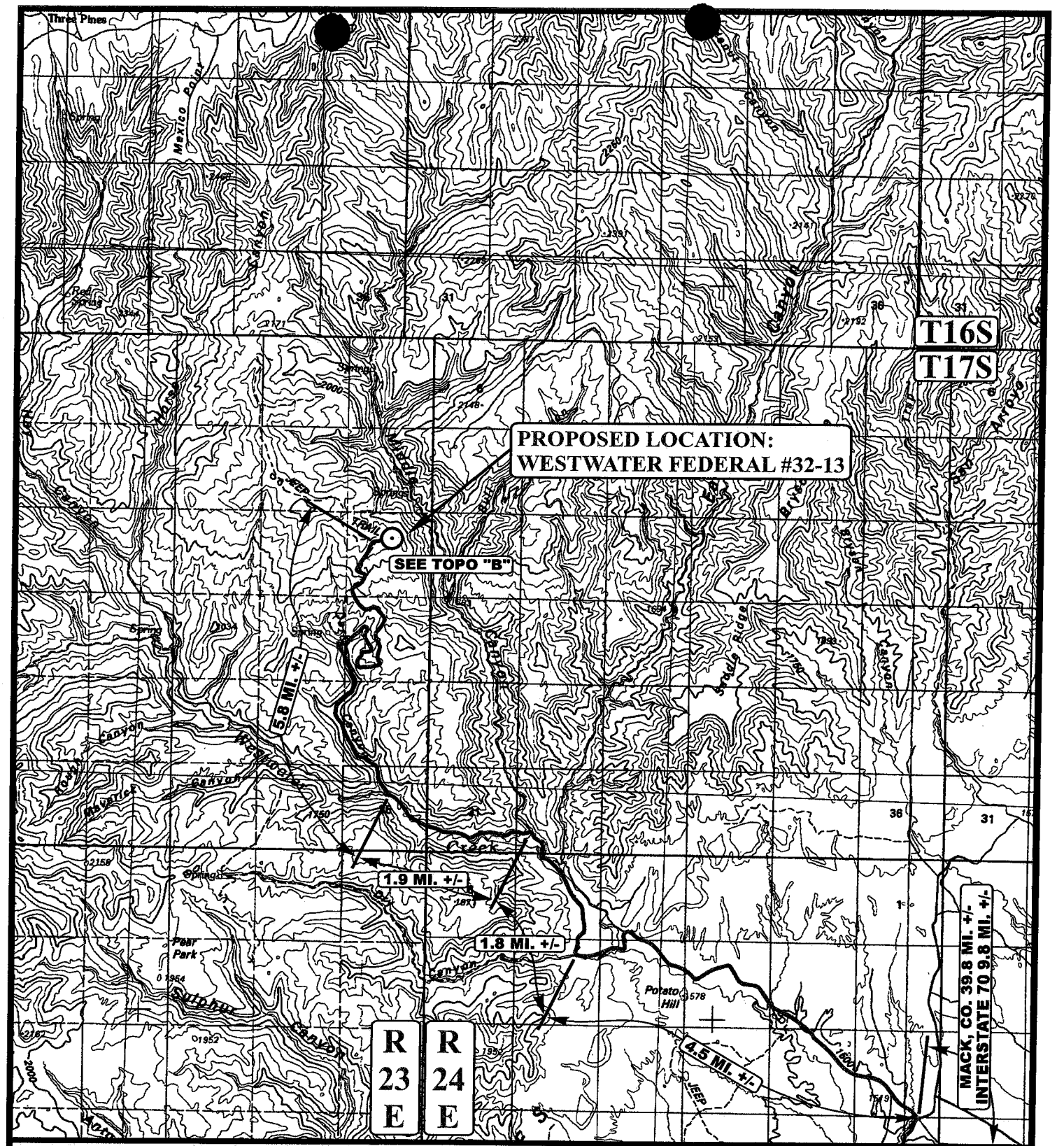
APPROXIMATE YARDAGES

CUT
(6") Topsoil Stripping = *1,010* Cu. Yds.
Remaining Location = *2,860* Cu. Yds.

TOTAL CUT = *3,870* CU.YDS.
FILL = *2,440* CU.YDS.

EXCESS MATERIAL = *1,430* Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.) = *1,430* Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation) = *0* Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
*85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017*



LEGEND:

⊙ PROPOSED LOCATION

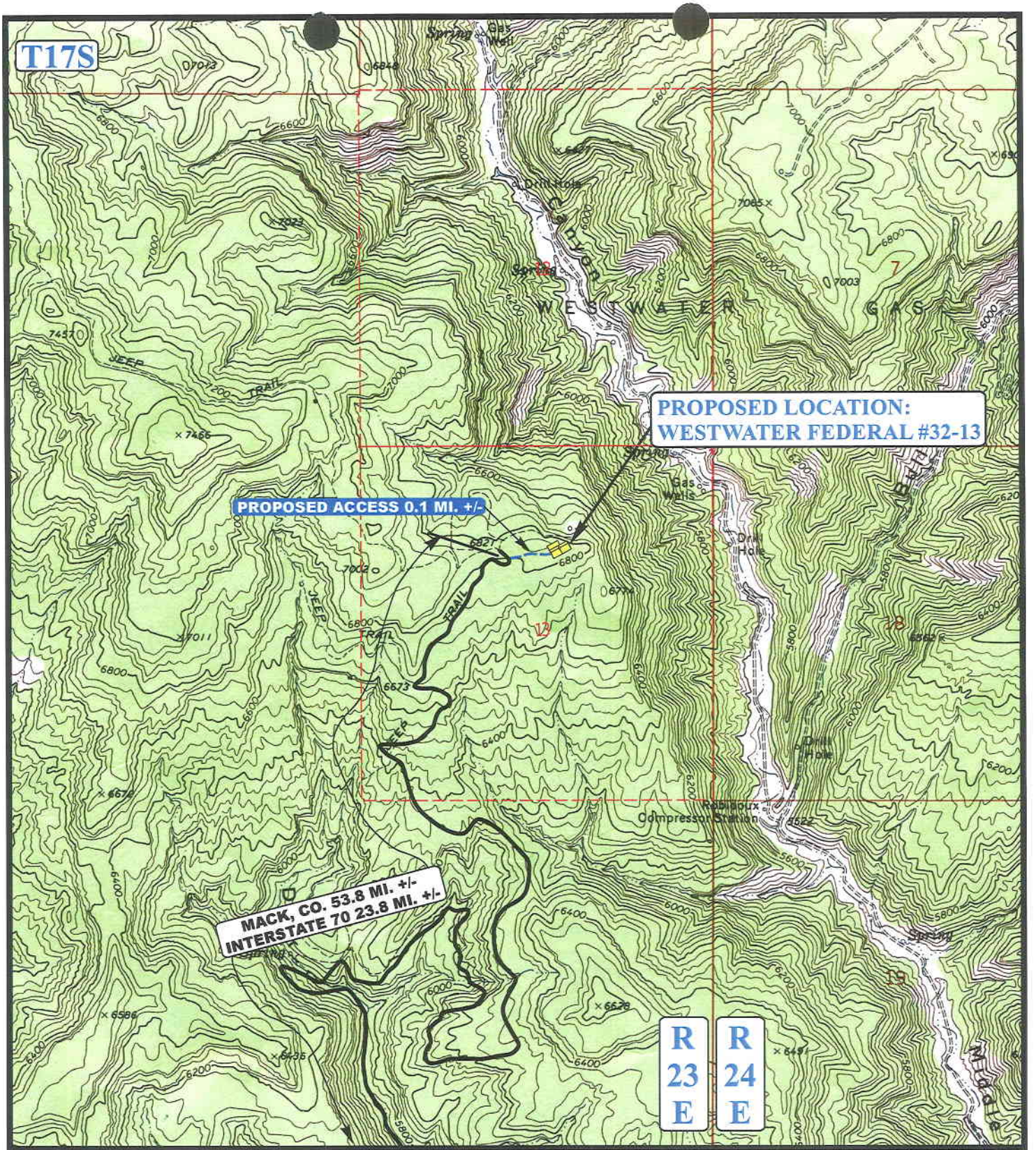
N

NATIONAL FUEL CORPORATION

WESTWATER FEDERAL #32-13
SECTION 13, T17S, R23E, S.L.B.&M.
1502' FNL 2310' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	09 MONTH	03 DAY	08 YEAR
SCALE: 1 : 100,000	DRAWN BY: L.K.	REVISED: 00-00-00	A TOPO



LEGEND:

EXISTING ROAD

N

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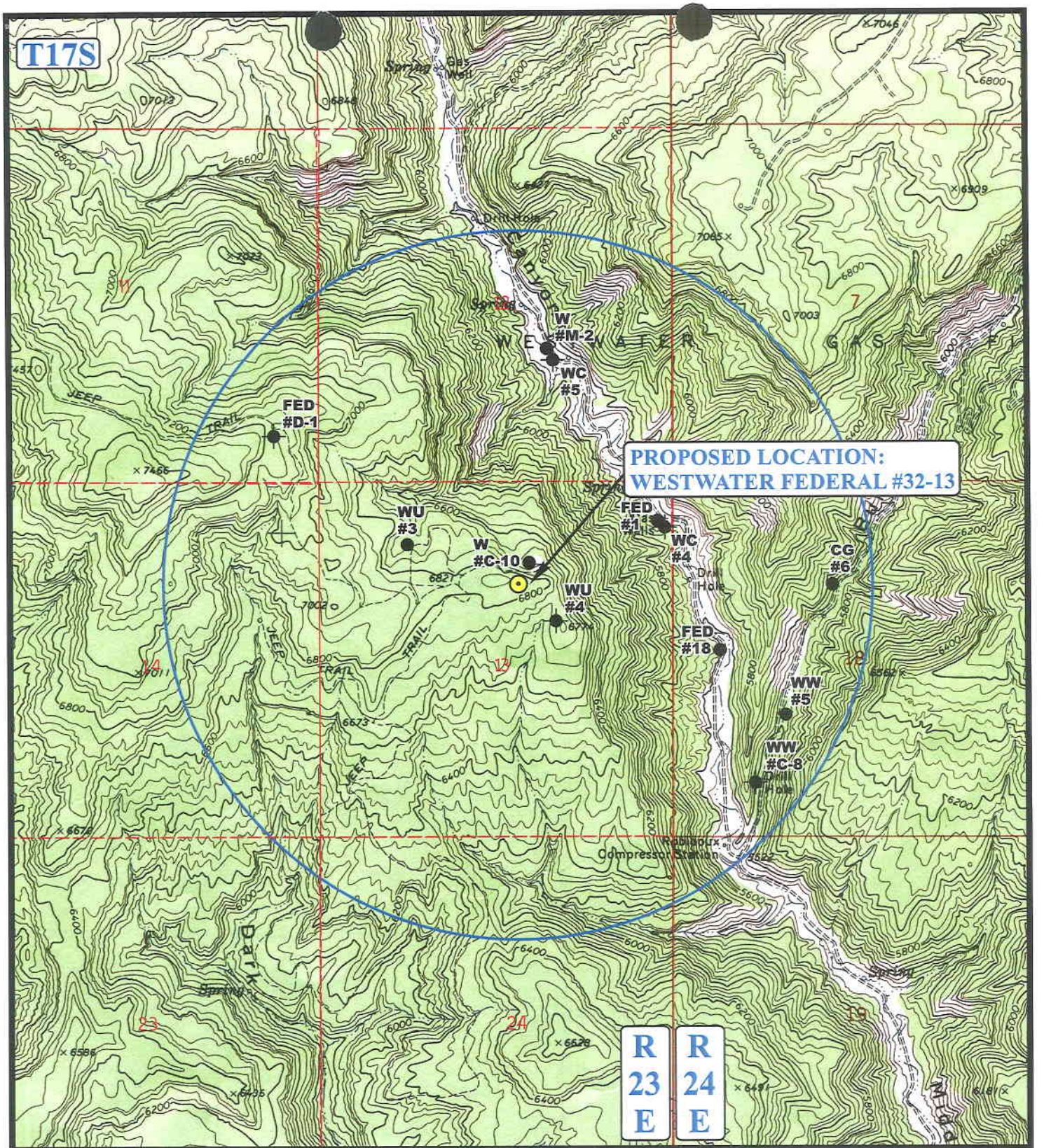
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	09 MONTH	03 DAY	08 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: L.K.	REVISED: 00-00-00		



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

NATIONAL FUEL CORPORATION

WESTWATER FEDERAL #32-13
SECTION 13, T17S, R23E, S.L.B.&M.
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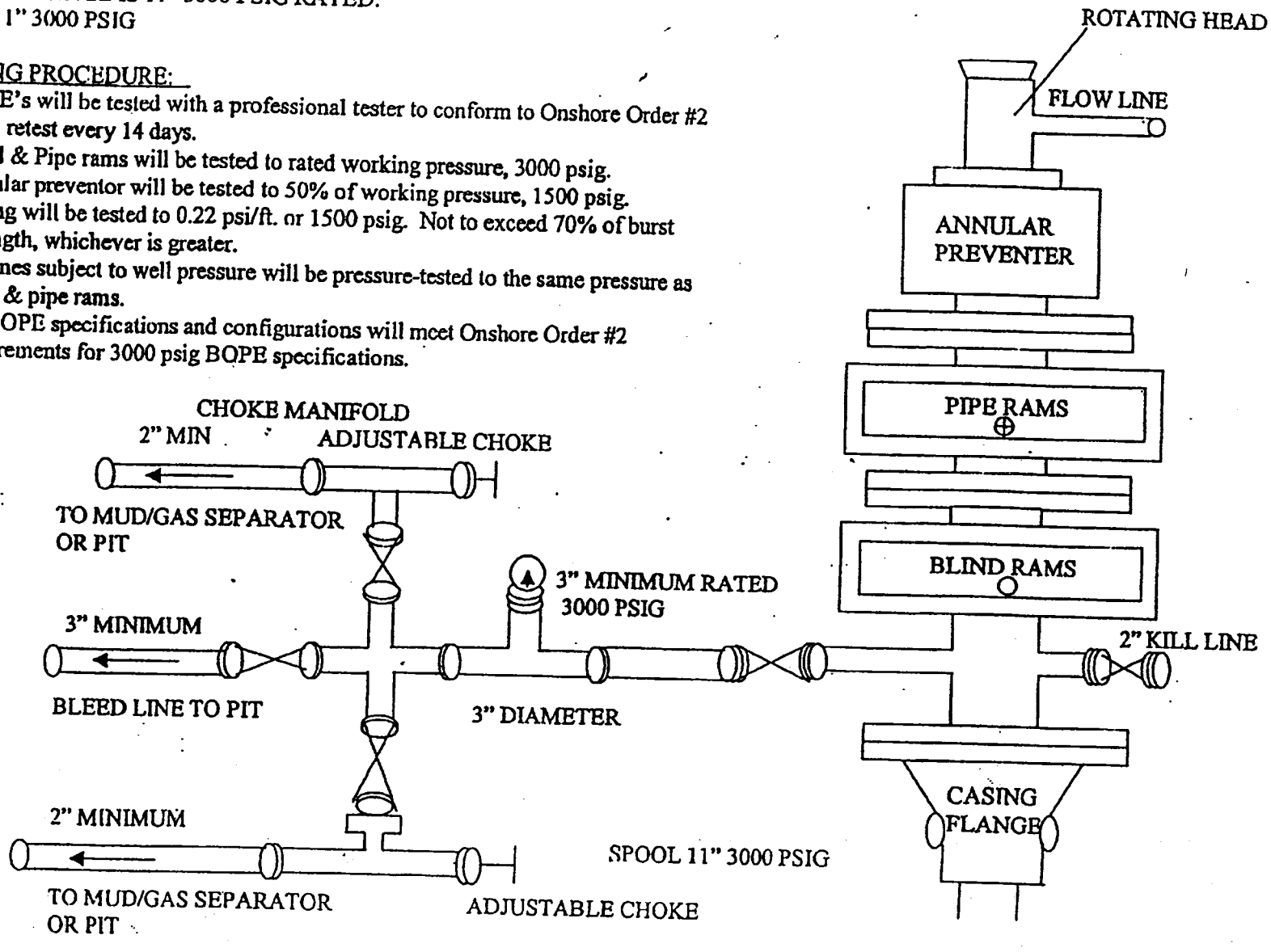
TOPOGRAPHIC MAP	09 MONTH	03 DAY	08 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: L.K.	REVISED: 00-00-00		

3000 PSIG DIAGRAM

ANNULAR PREVENTOR AND BOTH RAMS ARE 3000 PSIG RATED.
CASING FLANGE IS 11" 3000 PSIG RATED.
BOPE 11" 3000 PSIG

TESTING PROCEDURE:

1. BOPE's will be tested with a professional tester to conform to Onshore Order #2 with retest every 14 days.
2. Blind & Pipe rams will be tested to rated working pressure, 3000 psig.
3. Annular preventor will be tested to 50% of working pressure, 1500 psig.
4. Casing will be tested to 0.22 psi/ft. or 1500 psig. Not to exceed 70% of burst strength, whichever is greater.
5. All lines subject to well pressure will be pressure-tested to the same pressure as blind & pipe rams.
6. All BOPE specifications and configurations will meet Onshore Order #2 requirements for 3000 psig BOPE specifications.



(Submit in triplicate)

DESIGNATION OF AGENT

The undersigned is, on the records of the Bureau of Land Management, unit operator and under the Westwater Unit Agreement, Grand County, Utah, No. 14.08.001.4737, approved and effective 11 April 1958 and hereby designates:

Name: NATIONAL FUEL CORPORATION
Address: 8400 E. PRENTICE AVE. - STE. 1100
GREENWOOD VILLAGE, CO 80111

as its agent, with the full authority to act on its behalf in complying with the terms of the unit agreement and regulations applicable thereto and on whom the authorized officer or his representative may serve written or oral instructions in securing compliance with the oil and gas operating regulations with respect to drilling, testing and completing unit well number Fed. # 32-13 in the SW 1/4 NE 1/4, Sec. 13, T. 17 S., R. 23 E., Grand County, Utah. Bond coverage will be provided under (Statewide, Nationwide, Lessee) Bond No. 402157.

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In the event the above specified well is completed as a non-paying unit well, the authority for the designated agent to operate this well shall be established by completion of the Delegation of Authority to Operate Non-paying Unit Well form and submittal of the form to the appropriate office of the authorized officer.

3-5-09 — By: _____ Unit Operator
Date

3/5/09 — By: _____ Authorized Officer (for company drilling well)
Date

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 03/23/2009

API NO. ASSIGNED: 43-019-31621

WELL NAME: WESTWATER FED 32-13

OPERATOR: NATIONAL FUEL (N8060)

PHONE NUMBER: 303-220-7772

CONTACT: ANDREW BUSCH

PROPOSED LOCATION:

SWNE 13 170S 230E

SURFACE: 1502 FNL 2310 FEL

BOTTOM: 1502 FNL 2310 FEL

COUNTY: GRAND

LATITUDE: 39.33124 LONGITUDE: -109.32092

UTM SURF EASTINGS: 644722 NORTHINGS: 4354671

FIELD NAME: WESTWATER (265)

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal

LEASE NUMBER: SL071893

SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: MNCS

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[1] Ind[] Sta[] Fee[]
(No. 402157)

N Potash (Y/N)

N Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 3553)

N RDCC Review (Y/N)
(Date:)

N/A Fee Surf Agreement (Y/N)

N/A Intent to Commingle (Y/N)

LOCATION AND SITING:

___ R649-2-3.

Unit: WESTWATER

___ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells

✓ R649-3-3. **Exception**

___ Drilling Unit
Board Cause No:
Eff Date:
Siting:

___ R649-3-11. Directional Drill

COMMENTS:

STIPULATIONS: 1- Federal Approval
2- Spacing Stip

API Number: 4301931621

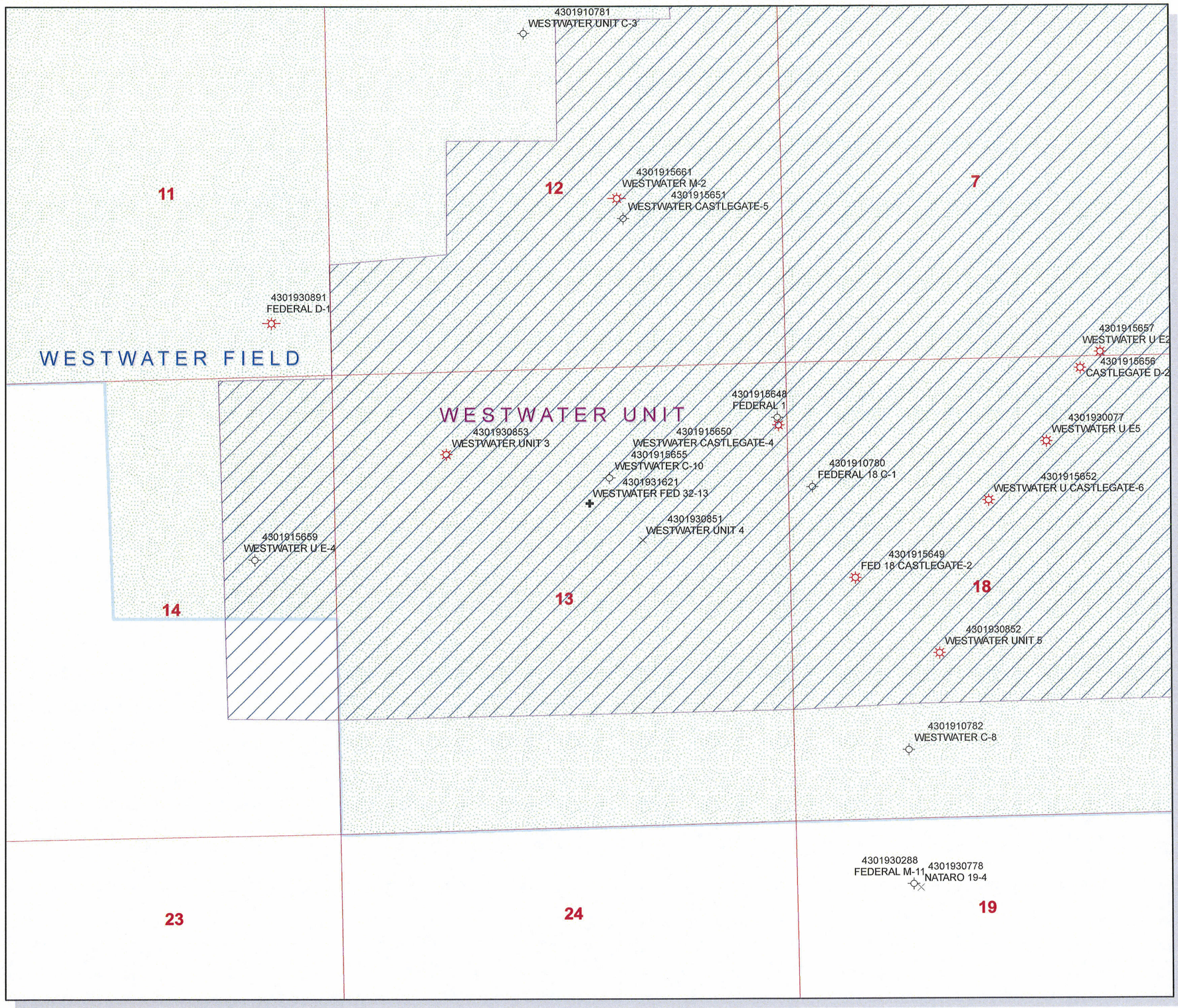
Well Name: WESTWATER FED 32-13

Township 17.0 S Range 23.0 E Section 13

Meridian: SLBM

Operator: NATIONAL FUEL CORPORATION

Map Prepared:
Map Produced by Diana Mason



Units

STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS
- ACTIVE
- COMBINED
- Sections

Wells Query Events
- <all other values>

GIS_STAT_TYPE
- <Null>
- APD
- DRL
- GI
- GS
- LA
- NEW
- OPS
- PA
- PGW
- POW
- RET
- SGW
- SOW
- TA
- TW
- WD
- WI
- WS

1,500 750 0 1,500 Feet

1:14,171

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

March 20, 2009

Memorandum

To: Assistant Field Office Manager Resources,
Moab Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 Plan of Development Westwater Unit,
Grand County, Utah.

We have received Designation of Agents from J.C. Thompson to National Fuel Corp. for the following well planned for calendar year 2009 within the Westwater Unit, Grand County, Utah.

API #	WELL NAME	LOCATION

(Proposed PZ Castlegate Mancos)

Westwater Federal 32-13 Sec 13 T17S R23E 1502 FNL 2310 FEL

Please be advised that commingling between the Castlegate and Mancos formations will involve the Castlegate Participating Area and horizons not covered by a participating area and therefore will require prior approval from the Moab Field Office.

This office has no objection to permitting the well at this time.

/s/ Michael L. Coulthard

bcc: File - ~~Westwater Unit~~
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:3-20-09

Mickey

(Submit in triplicate)

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GREENWOOD VILLAGE, CO 80111

as its agent, with the full authority to act on its behalf in complying with the terms of the unit agreement and regulations applicable thereto and on whom the authorized officer or his representative may serve written or oral instructions in securing compliance with the oil and gas operating regulations with respect to drilling, testing and completing unit well number Fed. # 32-13 in the SW 1/4 NE 1/4, Sec. 13, T. 17 S., R. 23 E., Grand County, Utah. Bond coverage will be provided under (Statewide, Nationwide, Lessee) Bond No. 402157. (BLM Bond # UTB000186)

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3-5-09 — By: _____
Date — Unit Operator

3/5/09 — By: _____
Date — Authorized Officer (for company drilling well)

APPROVED - EFFECTIVE MAR 20 2009

ACTING CHIEF, BRANCH OF FLUID MINERALS
BUREAU OF LAND MANAGEMENT

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

September 23, 2009

National Fuel Corporation
8400 East Prentice Ave., Suite 1100
Greenwood Village, CO 80111

Re: Westwater Federal 32-13 Well, 1502' FNL, 2310' FEL, SW NE, Sec. 13, T. 17 South, R. 23 East, Grand County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-019-31621.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Grand County Assessor
Bureau of Land Management, Moab Office

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

Operator: National Fuel Corporation

Well Name & Number Westwater Federal 32-13

API Number: 43-019-31621

Lease: SL071893

Location: SW NE **Sec.** 13 **T.** 17 South **R.** 23 East

Conditions of Approval

1. General

   Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

   Notify the division within 24 hours of spudding the well.

   - Contact Carol Daniels at (801) 538-5284.

   Notify the Division prior to commencing operations to plug and abandon the well.

   - Contact Dustin Doucet at (801) 538-5281 (801) 733-0983 home

3. Reporting Requirements

   All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

Form 3160-3
(August 2007)

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SL071893

6. If Indian, Allotee or Tribe Name
NA

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
Westwater

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Westwater Federal #32-13

2. Name of Operator National Fuel Corporation

9. API Well No.
4301931621

3a. Address 8400 East Prentice Ave., Suite#1100
Greenwood Vill., Co. 80111

3b. Phone No. *(include area code)*
(303)220-7772

10. Field and Pool, or Exploratory
Westwater

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SW NE Section 13, Twn 17S, Rng 23E, 1502'FNL, 2310' FEL
At proposed prod. zone Same

11. Sec., T. R. M. or Blk.and Survey or Area
Sec 13, T17S, R23E

14. Distance in miles and direction from nearest town or post office*
53.9 miles to Mack, Co.

12. County or Parish
Grand

13. State
Ut

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
1502'

16. No. of acres in lease
2211.56

17. Spacing Unit dedicated to this well
Unspaced

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
370', Westwater #C-10, P & A

19. Proposed Depth
2800'

20. BLM/BIA Bond No. on file
#402157

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6825' GL

22. Approximate date work will start*
07/01/2009

23. Estimated duration
15 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature *Andrew Busch*
Name *(Printed/Typed)* Andrew Busch
Date 01/29/2009

Title
VP of Operations

Approved by *(Signature)* /s/ A. Lynn Jackson
Name *(Printed/Typed)* /s/ A. Lynn Jackson
Date 2/11/2010

Title Assistant Field Manager,
Division of Resources

Office Division of Resources
Moab Field Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

CONDITIONS OF APPROVAL ATTACHED

(Submit in triplicate)

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3-5-09 — Date
By: [signature] — Unit Operator

3/5/09 — Date
By: [signature] Diane Thompson — Authorized Officer (for company drilling well)

APPROVED - [signature] ACTING CHIEF ...

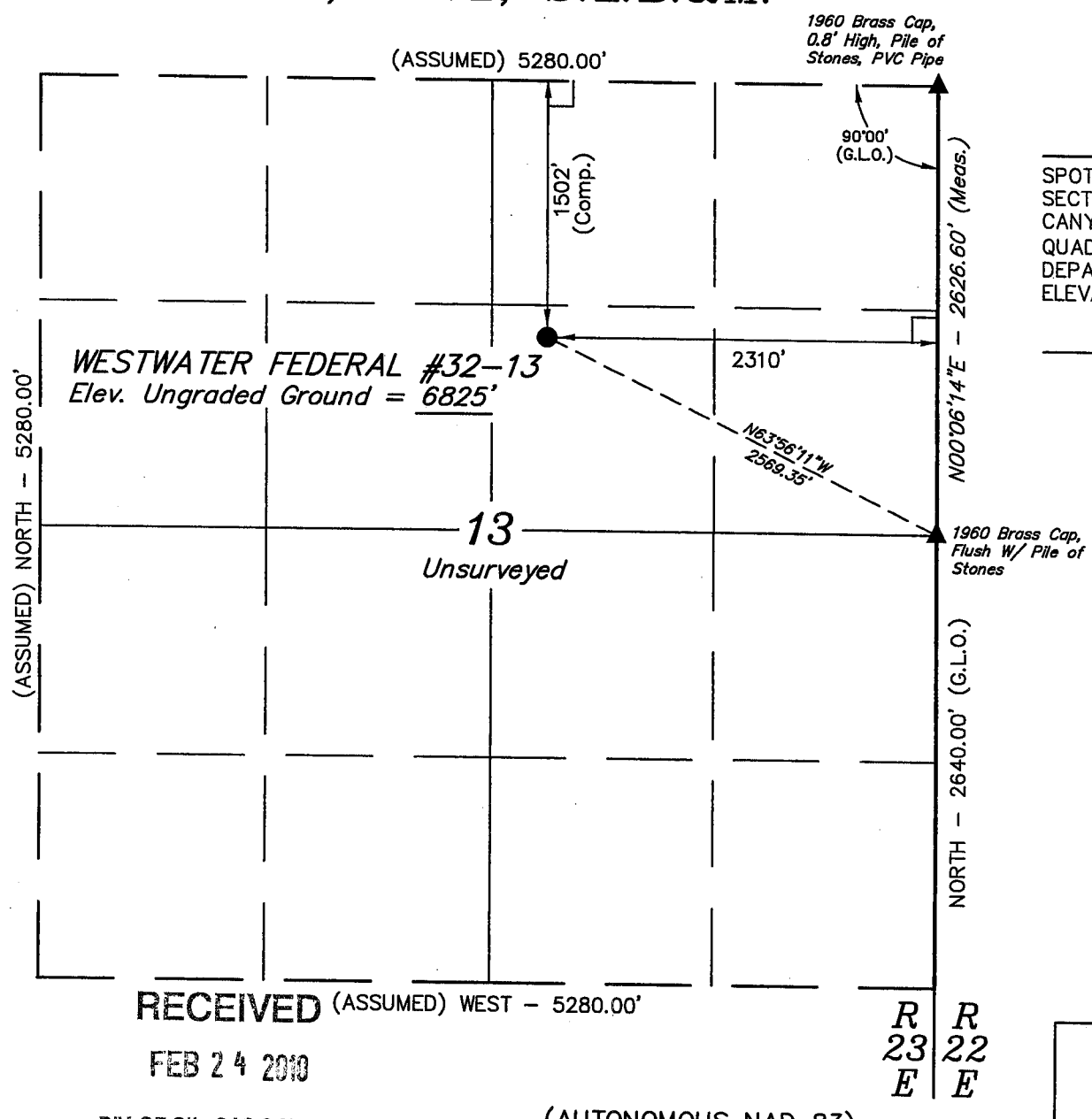
MAR 20 2009

RECEIVED

FEB 24 2010

DIV. OF OIL, GAS & MINING

T17S, R23E, S.L.B.&M.



RECEIVED
FEB 24 2010
DIV. OF OIL, GAS & MINING

LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83)
LATITUDE = 39°19'52.50" (39.331250)
LONGITUDE = 109°19'17.63" (109.321564)
(AUTONOMOUS NAD 27)
LATITUDE = 39°19'52.59" (39.331275)
LONGITUDE = 109°19'15.20" (109.320889)

NATIONAL FUEL COPRORATION

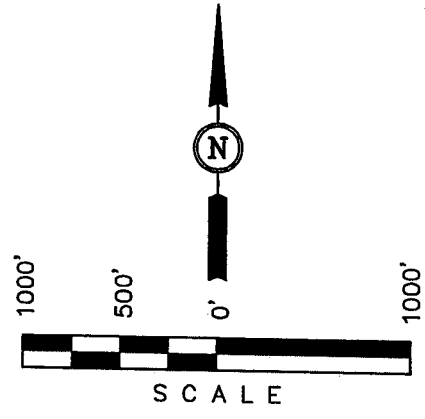
Well location, WESTWATER FEDERAL #32-13, located as shown in the SW 1/4 NE 1/4 of Section 13, T17S, R23E, S.L.B.&M., Grand County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE NORTHWEST CORNER OF SECTION 18, T17S, R24E, S.L.B.&M. TAKEN FROM THE DRY CANYON, QUADRANGLE, UTAH, GRAND COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5722 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE: 1" = 1000'	DATE SURVEYED: 08-25-08	DATE DRAWN: 08-29-08
PARTY: D.K. C.H. K.G.	REFERENCES: G.L.O. PLAT	
WEATHER: WARM	FILE: NATIONAL FUEL CORPORATION	

National Fuel Corporation
Westwater Federal 32-13
Lease UTSL071893
Westwater Unit, UTU63024X
SW/NE Section 13, T17S, R23E
Grand County, Utah

A COMPLETE COPY OF THIS APPROVED PERMIT and Conditions of Approval shall be maintained on location during all construction and drilling operations, and shall be available to contractors to ensure compliance.

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that National Fuel Corporation is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by BLM bond no. **UT1183** (Principal – National Fuel Corporation) via surety consent as provided for in 43 CFR 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of two years from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. Failure to comply with the provisions of this permit, including applicable regulations, stipulations, and/or approval conditions, will be considered a violation subject to the enforcement provisions of 43 CFR Subpart 3163.

A. DRILLING PROGRAM

1. A 3M BOP system, as proposed, is adequate for anticipated drilling conditions. Testing to 2M standards is acceptable. Installation, testing and operation of the BOP system shall be in conformance with Onshore Oil and Gas Order No. 2.

2. Air/mist drilling operations shall comply with the provisions of Onshore Oil and Gas Order No. 2, part III.E, *Special Drilling Operations.*

3. Concurrent approval from the State of Utah, Division of Oil, Gas & Mining (DOGM) is required before conducting any surface disturbing activities.

4. Drilling reports, which describe the activities of each day, shall be submitted to the BLM Moab Field Office on a weekly, or more frequent, basis. In addition to a daily summary of activities, drilling reports shall include the drilling fluid weight, details of casing and cement, water flows, lost circulation zones and any other information that would contribute to our understanding of drilling conditions.

5. This well is located within the Westwater Unit Castlegate Participating Area (PA). In addition to the Castlegate Sandstone, production is anticipated from the Mancos B and Westwater 3 zones, which are not included in the PA. Production from the Castlegate Sandstone may not be commingled with production from any other formation which is not included in the PA. If production is realized from the Castlegate Sandstone and any other non-PA zone, gas from each zone must be produced and measured separately.

B. Surface

Site Specific COAs

1. The proposed pad location shall be reconfigured to keep surface disturbing activity away from steep slopes. The original pad design was 125' X 290'; the reconfigured pad shall be 115' X 340'. A minimum 5 foot buffer shall be maintained from the edge of the pad location to the point where the ridge top abruptly transitions into a steep slope (the south and southwest sides of the location).
2. The operator shall install and properly maintain sediment fences, straw bales, wattles and/or erosion control blankets on cut and fill slopes and areas of the pad and road that are adjacent to steep slopes.
3. Fill slopes near steep slopes shall have a silt fence re-enforced with straw bales.
4. After the well is drilled, the pad shall be recontoured so that most runoff will be directed to flatter and more vegetated portions of the ridge (the northeast and southwest ends of the pad).
5. The access road shall have a 12-14 foot travel width with a disturbance corridor not to exceed 25 feet. Fifty feet from the ends of the road corridor, the width of the road may gradually widen to 50 feet so that large trucks can make the turns.

Standard COAs

General

1. If COAs are more stringent than the applicant-committed practices the COAs shall prevail.
2. All contractors, subcontractors or any other individual(s) doing work on this project shall read, understand the Conditions of Approval. They shall have a copy of the Conditions of Approval, project map and design plans with them at all times.
3. This approval does not authorize non-federal actions. State and county permits may be required prior to any construction activity.
4. Please contact Dave Skinner, Natural Resource Specialist, at (435) 259-2145, Bureau of Land Management, Moab, if there are any questions concerning these surface use COAs.

Cultural

1. Should any cultural resources be unearthed, surface-disturbing activities will be rerouted to avoid or halted until the cultural sites/artifacts can be evaluated for significance, and a mitigation/salvage plan be formulated. These actions would successfully mitigate possible impacts to cultural resources such that detailed analysis is not required.

Paleontological Resources

1. The operator shall immediately notify the BLM authorized officer of any paleontological resources discovered as a result of operations under this authorization, protect the discovery from damage or looting, and suspend all activities in the vicinity of such discovery until notified to proceed by the authorized officer. The operator is not required to suspend operations if activities can avoid further impacts to a discovered locality or be continued elsewhere.

   The authorized officer will evaluate, or will have evaluated, such discoveries as soon as possible but not later than 10 working days after being notified. Appropriate measures to mitigate adverse effects to significant paleontological resources will be determined by the

authorized officer after consulting with the operator. Approval for the project to proceed will be granted when recovery of the fossil material and field data is completed.

The operator is responsible for the cost of any investigation necessary for the evaluation and mitigation of paleontological resources. The operator is not responsible for the cost of recovery outside of the approved area of disturbance, even if the paleontological locality continues outside that area.

Wildlife

1. In order to protect nesting raptors, no road or well pad construction; drilling or well completion operations; or construction of production facilities may occur between the dates or within the buffer radius specified in the table below. This limitation does not apply to maintenance and operation of existing wells. An exception to this restriction may be granted if the following conditions are met.
   A. A raptor survey is conducted by a qualified biologist during the breeding/nesting season (Contact Pam Riddle, BLM wildlife biologist (435-259-2138) if you need assistance finding a qualified biologist. The selected biologist must contact Pam Riddle prior to conducting the survey to discuss survey requirements).
   B. The survey reveals that no nests are occupied by any raptor species within each species' respective buffer radius.
   C. A written request for exception to this restriction is submitted to the Moab Field Office, accompanied by a current season raptor survey report.

If an exception is granted, it will be valid for the current nesting/breeding season.

Raptor Season and Spatial Buffers*

Species	Seasonal Restriction	Buffer Radius
Cooper's Hawk	March 1 through August 31	0.5 miles
Golden Eagle	January 1 through August 31	0.5 miles
Sharp-shinned Hawk	March 1 through August 31	0.5 miles
Ferruginous hawk	March 1 through August 1	0.5 miles
Northern Harrier	April 1 through August 15	0.5 miles
Red-tailed Hawk	March 15 through August 15	0.5 miles
Prairie Falcon	April 1 through August 31	0.25 miles

*Table depicts common species of raptors in the area, other species may be present and Utah USFWS buffer recommendation would be applied.

2. In order to protect mule deer on crucial winter range no road or well pad construction; drilling or well completion operations; or construction of production facilities will be authorized between November 15 and April 15 to reduce the potential impacts to mule deer. The restriction would not apply to the maintenance and operation of producing wells. The dates and provisions for producing wells would be consistent with the oil and gas stipulation for deer winter range in the MFO RMP.
3. If the well goes into production, all vents, exhaust stacks and other openings on facilities and equipment shall be covered with grating or hardware cloth. The mesh size of the grating or hardware cloth shall be sufficiently small to keep all birds from entering the vents, stacks and other openings.

Well Pad/Road Construction/Maintenance

1. Surface disturbance and vehicular travel will be limited to the approved location and access road.
2. All soil and gravel brought in from off site for road or pad construction shall come from a pit free of invasive, non-native species.
3. Impacts from new well pad and road construction would be minimized by appropriate drainage control (i.e. water bars, low water crossings in ephemeral drainages, etc). If the well goes into production, mitigation of impacts to soils may include 1) upgrading roads to BLM Gold Book standards and 2) reclamation of any unused areas (i.e. well pads, unneeded road access). If the well is not produced, then reclamation would mitigate and reduce impacts to soils.
4. The operator shall maintain the existing roads in a safe, usable condition, as directed by the Moab Field Office. The maintenance program shall include, but is not limited to, blading, ditching, installing culverts, and if needed, surfacing the road with aggregate. The operator shall conduct all activities associated with the Grand County roads within the existing surface disturbances of the maintained roads. The operator shall repair all damages to the county roads resulting from traffic associated with constructing, drilling, and producing the well.
5. The operator shall not block access to roads that intersect with the main roads being used to drill this well. If blading the road for maintenance, the operator must make sure to remove any windrow that crosses another road.
6. The operator shall salvage the topsoil from the entire disturbed area of the location prior to construction of the pad. This includes removal of topsoil from the areas under where spoil piles would be stored.
7. Gates and cattle guards shall be maintained to at least existing condition or better.
8. New roads constructed shall be signed "Closed to Public Access".
9. The reserve pit would be fenced on three sides during drilling and on the fourth side when the drill rig is removed from the site.

Wastes

1. All Federal and State laws would be followed regarding use, storage and disposal of hazardous materials and solid wastes.
2. No produced water or other fluids will be disposed on the well pad or roads.

Fuels/Fire

1. During the activities of road maintenance, new road construction, or the construction of well pads, if any standing live or dead trees were damaged, cut down, or knocked over by grading or construction equipment; actions would be taken to mitigate the fuel loads from slash generated from these activities. In areas where reclamation of the site would be expected and slash would be utilized to help reclaim the site, temporary piling of slash until termination of activities would be acceptable. In areas where reclamation is not planned in the foreseeable future, disposal of slash would be required. Acceptable disposal actions include the chipping of materials on site with dispersal along edge of the road or pad. Hauling of materials would also be acceptable with the following stipulations:
    a. BLM would pre-approve the disposal location.
    b. Piled vegetation would not be within fifteen feet of standing live trees.
    c. Because downed trees would provide an opportunity for public firewood cutting and collection, piles must be located adjacent to and accessible by road.
    d. All burning of materials would be conducted by BLM specialists.
2. Fire suppression equipment would be available to suppress any wildfires caused by

construction or related activities. In the event of a wildfire, the Moab Fire Center would be notified (435-259-1850).

Reclamation

1. Eight inches of topsoil will be removed from the location and stockpiled separately at the end of well pad. Where possible topsoil shall be windrowed around the perimeter of the pad rather than stored in a pile.
2. All junk, debris, or other foreign material must be removed before initiating any dirt work to reclaim the location. All road surfacing will be removed prior to the rehabilitation of roads.
3. If the well proves to be non-producing the well pad and new access road would be reclaimed. Reclamation would include backfilling pits, removing berms, restoring the approximate natural contours of the location, ripping areas with compacted soils, respreading topsoil and reseeding the location with an approved seed mix.
4. At the end of drilling operations and prior to reclamation of the reserve pit could be a hazard to migratory birds if it contains hydrocarbon or other substances that could be harmful to them; or if the structure of the pit would prevent the escape of birds from a water filled put. If either case occurs, the top of the pit shall be covered with netting of one inch or less to prevent access by birds while the pit is drying.
5. Unless weather conditions prevent it, the pit should be closed as soon as is practical after drilling and completion operations. Under no circumstances shall the pit remain open past 1 year. If necessary, the pit fluids will be pumped out of the pit to facilitate the pits closure prior to the 1 year deadline. The backfilled pit shall be slightly mounded at the surface to allow for subsidence.
6. Unless weather conditions prevent it, interim reclamation shall be commenced within 6 months of completion of the well. The portions of the well pad that are not needed for production operations would be recontoured and revegetated. Other disturbed areas, such as cut and fill slopes that are not recontoured would also be revegetated or otherwise stabilized.
7. Prior to reseeding, all disturbed areas, including the access roads would be scarified and left with a rough surface.
8. The operator would drill seed on the contour to a depth of 0.5 inch, followed by cultipaction of the seedbed, preventing soil and seed losses. To maintain quality and purity, the current years tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% would be used. Seed would be broadcast or drilled between September 1 and November 30, or at a time specified by the BLM. If broadcast, a harrow or some other implement would be dragged over the seeded area to assure seed coverage. the following seed mix would be used:

Species – *Cultivar*	% in Mix	Lbs PLS*
Indian Ricegrass	40	4
Bluebunch Wheatgrass	50	5
Low Rabbitbrush	10	1
Totals	100%	10.00 lbs/acre

*PLS = pure live seed
*Double this rate if broadcast seeding

9. Slopes too steep for machinery may be hand-broadcast and raked with twice the specified amount of seed.

Noxious/Invasive Weeds

1. To reduce the opportunity to transport invasive and/or noxious weeds, the operator would be required to wash all vehicles and equipment before mobilizing into the project area to begin any dirt work or drilling activities.
2. The operator would be responsible for weed control on the disturbed areas within the limits of the well pad and road construction. The operator would be responsible for consultation with the authorized officer and/or local authorities for acceptable weed control methods.
3. The operator would monitor the location for noxious weeds throughout the growing season. If any are discovered an Integrated Pest Management Plan would be created and need BLM approval prior to beginning any treatment program.

Air Quality

1. All new and replacement internal combustion oil and gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2.0 grams of NOx per horsepower-hour. This requirement does not apply to oil and gas field engines of less than or equal to 40 design-rated horsepower.
2. All new and replacement internal combustion oil and gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NOx per horsepower-hour.
3. Dust control will be provided during construction and drilling operations by spraying fresh water on new road construction, roads being maintained or utilized, and the well pad as needed.
4. When vehicular traffic on roads results in dust plumes that exceed the height of the vehicle, travel speeds shall be reduced so that dust plumes are below the height of the vehicle.

Visual Resources

1. Within six months of installation, all permanent structures will be painted a flat, non-reflective color to match the standard environmental colors. The color for this project shall be "Beetle."
2. To maintain a visual buffer from the county road, the removal and trimming of trees shall be kept to a minimum along the access road and the southwest side of the well pad.

Soil and Water

1. No produced water or other fluids will be disposed on the well pad, roads or adjacent areas.
2. If conditions are wet enough that vehicles are rutting roads four inches deep or more all work shall stop until conditions dry out.

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C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

Building Location- Contact the Moab Field Office, Natural Resource Protection Specialist at least 48-hours prior to commencing construction of location.

Spud- The spud date will be reported to BLM 24-hours prior to spud. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the Moab Field Office within 24-hours after spud, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the Moab Field Office on a weekly basis.

Oil and Gas Operations Reports (OGORs)- Production from this well shall be reported to Minerals Management Service (MMS) on a monthly basis.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval. "Sundry Notices and Reports on Wells" (Form 3160-5) will be filed with the Moab Field Office for approval of all changes of plans and subsequent operations in accordance with 43 CFR 3162.3-2. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Moab Field Office. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the BLM in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the Moab Field Office is to be notified.

First Production- Should the well be successfully completed for production, the Moab Field Office will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Moab Field Office. The Moab Field Office shall be notified prior to the first sale.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the Moab Field Office not later than thirty-days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. When requested, samples (cuttings and/or samples) will be submitted to the Moab Field Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever first occurs, without the prior, written approval of the Moab Field Office. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor (BLM) shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water- If water is a byproduct of the well's hydrocarbon production, an application for approval of a permanent produced water disposal method and location will be submitted to the Moab Field Office for approval pursuant to Onshore Oil and Gas Order No.7. Produced water may be temporarily disposed of in the reserve pit for a period of up to 90 days after completion.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the Moab Field Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the Moab Field Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the Moab Field Office within thirty-days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Moab Field Office or the appropriate surface managing agency.

TABLE 1 NOTIFICATIONS

Notify Dave Skinner (435-259-2145) or Eric Jones (435-259-2117) of the BLM Moab Field Office for the following, as appropriate:

2 days prior to commencement of dirt work, construction and reclamation (Skinner);

1 day prior to spud (Jones);

If the people referenced above cannot be reached, notify the Moab Field Office at 435-259-2100. If unsuccessful, contact the person listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab Field Office at 435-259-2100. If approval is needed after work hours, you may contact the following:

Eric Jones, Petroleum Engineer Office: 435-259-2117
Home: 435-259-2214

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER:	SL071893
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME:	Westwater
1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER	
8. WELL NAME and NUMBER:	Westwater Federal #32-13
2. NAME OF OPERATOR:	National Fuel Corporation
9. API NUMBER:	4301931621
3. ADDRESS OF OPERATOR:	8400 E Prentice Ave CITY Greenwood Vill. STATE Co ZIP 80111
PHONE NUMBER:	(303) 220-7772
10. FIELD AND POOL, OR WILDCAT:	Westwater

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1502' FNL, 2310' FEL — COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE 13 17S 23E — STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
6/21/2010	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER: Notification of Spud
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This Sundry Notice is being submitted for notification of spud date and information for the Westwater Federal #32-13.

Spud Date for Conductor: June 21st, 2010
Spud Time: 4:00PM
Drilling Contractor: Craig's Roustabout
Rig Number: #4
Continuous Drilling Commenced: June 21st, 2010 at 10:30PM
Name of Person Reporting Spud: Pink Chivers
Contact Number: 435-828-7106

NAME (PLEASE PRINT) Andrew Busch — TITLE V.P. of Operations

SIGNATURE Andrew Busch by RH — DATE 10/13/2010

(This space for State use only)

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DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: SL071893

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME: Westwater

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: Westwater Federal #32-13

2. NAME OF OPERATOR: National Fuel Corporation

9. API NUMBER: 4301931621

3. ADDRESS OF OPERATOR: 8400 E Prentice Ave CITY Greenwood Vill. STATE Co ZIP 80111

PHONE NUMBER: (303) 220-7772

10. FIELD AND POOL, OR WILDCAT: Westwater

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1502' FNL, 2310' FEL

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE 13 17S 23E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: 6/30/2010	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: Submit Drilling Report
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This Sundry Notice is being submitted for notification of drilling operations performed on the Westwater Federal #32-13. Drilling operations commenced on June 21st, 2010 and were completed on June 30th, 2010. Included as an attachment with this form is a detailed report of the daily drilling operations.

Drilling Contractor: Craig's Roustabout
Rig Number: #4
Drilling Consultant: Pink Chivers
Contact Number: 435-828-7106

NAME (PLEASE PRINT) Andrew Busch TITLE V.P. of Operations

SIGNATURE Andrew Busch by RH DATE 10/13/2010

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OCT 14 2010
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

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7. UNIT or CA AGREEMENT NAME: Westwater
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FOOTAGES AT SURFACE: 1502' FNL, 2310' FEL
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QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE 13 17S 23E
STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☑ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: 6/30/2010	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER: _____
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This Sundry Notice is being submitted for notification of plug and abandonment of the Westwater #32-13 verbally approved by Eric Jones at the Moab BLM office and witnessed by Jeff Brown, Moab BLM. Decision was made to P&A due to lack of gas shows during drilling and confirmation through open hole logs.
6/29 to 6/30/2010
Pumped 210 sacks of Class "G" cement across Mancos 2745' to 2820' TD. Tagged.
Pumped 210 sacks of Class "G" cement across Castlegate 1942' to 2070'. Tagged.
Pumped 55 sacks of Class "G" cement across surface shoe at 338'.
Pumped 75 sacks of Class "G" cement from 60' to surface.
Installed dry hole marker 3 feet below the surface with the following information:
National Fuel Corporation
Westwater Federal #32-13
SWNE, Sec. 13 – T17S – R23E
Lat – 39.331250, Lon – 109.321564
Grand County, Utah
API# 4301931621, Lease # - SL071893, 6/30/2010
7/19 to 7/22/2010
Craigs Roustabout rehabed location.

NAME (PLEASE PRINT) Andrew Busch TITLE V.P. of Operations
SIGNATURE Andrew Busch by RK DATE 10/13/2010

(This space for State use only)

RECEIVED
OCT 14 2010
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: National Fuel Corporation

Operator Account Number: N 8060

Address: 8400 E. Prentice Ave, Suite #1100

city Greenwood Village

state Co zip 80111

Phone Number: (303) 220-7772

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4301931621	Westwater Federal #32-13		SWNE	13	17S	23E	Grand
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
A	99999	99998	6/21/2010			10/18/10	

Comments: Commencement of drilling began on 06/21/2010 at 4:00PM.
MNCS plugged 6/30/10

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	

Comments:

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	

Comments:

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Andrew Busch
Name (Please Print)

Andrew Busch by RK
Signature

V.P.of Operations
Title

10/13/2010
Date

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OCT 14 2010
DIV. OF OIL, GAS & MINING

(5/2000)

P&A

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: SL071893

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME: Westwater

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

8. WELL NAME and NUMBER: Westwater Federal #32-13

2. NAME OF OPERATOR: National Fuel Corporation

9. API NUMBER: 4301931621

3. ADDRESS OF OPERATOR: 8400 E Prentice Ave CITY Greenwood Vill. STATE Co ZIP 80111

PHONE NUMBER: (303) 220-7772

10 FIELD AND POOL, OR WILDCAT: Westwater

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 2310' FEL 1502' FNL
AT TOP PRODUCING INTERVAL REPORTED BELOW: Same
AT TOTAL DEPTH: Same

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE 13 17S 23E

12. COUNTY: Grand

13. STATE: UTAH

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED:	ABANDONED	READY TO PRODUCE	17. ELEVATIONS (DF, RKB, RT, GL):
6/21/2010	6/27/2010	6/30/2010	☑	☐	6825 GL

18. TOTAL DEPTH:	19. PLUG BACK T.D.:	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE PLUG SET:
MD 2,821 TVD 2,821	MD 0 TVD 0	NA	MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
Schlumberger Plattform Express
AIT - TLD - HGNS - GR

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☑ YES ☐ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
12 1/4"	9 5/8 J55	36	0	338		ClassG 400	80	Surface,cir	NA

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
NA								

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) NA				
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
NA	

29. ENCLOSED ATTACHMENTS:
☑ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☑ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: P&A

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(5/2000) (CONTINUED ON BACK)

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

NA

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
Mesa Verde	0	1,982	No Hydrcarbon Shows	Same as 33.	
Castlegate	1,982	2,020	No Hydrcarbon Shows		
Mancos	2,020	2,821	No Hydrcarbon Shows		

35. ADDITIONAL REMARKS (Include plugging procedure)

See attached P&A Sundry

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Andrew Busch TITLE V.P. of Operations

SIGNATURE Andrew Busch by RH DATE 10/13/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)